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THE
ANNALS
OF
INDIAN ADMINISTRATION.

IRRIGATION IN BENGAL.

Bengal Records, No. XXXVI, Part I.

The Damoodah.—The Executive Engineer, Burdwan Division, reports on the irrigation works undertaken by Mr. C. Grose, a landholder. The locality where his experiments were carried on was the Talook of Joypore situated between the rivers Damoodah and Roopnarain, due west of Amptah. The people cannot cultivate rice there during the rains on account of the flooded state of that part of the country. In the cold weather the Damoodah is so small, and so far below the level of the khals around it, that a supply of water for the crops is not easily obtained. The Damoodah khal is higher than the surface of the river at that season. By building a dam across the river at Rajbulghat, Mr. Grose caused the water to flow into the khal, and thence by smaller dams he led it all over the land he wished to irrigate. The breadth of the Damoodah at the dam is 1210 feet. The bed shoals in the centre. The dam was formed of sand with a small admixture of alluvial earth called *pully*, supported in two places by bamboos and bundles of straw. It was finished in six weeks at a cost of Rs. 2,000. The current of the river was effectually diverted; the bed of the river below the barrier held only pools of water here and there, and at Amptah several miles lower down a streamlet 12 feet wide and 3 inches deep represented the entire leakage. At the time of inspection the greatest depth in the khal was $2\frac{1}{2}$ feet with a sluggish stream about 200 feet wide. The bed of the khal was five feet higher than that of the river Damoodah. After Mr. Grose's lands had obtained a fortnight's supply of water

permission was given to the Zemindars to form a dam. This villages were irrigated by this means, after which the water, once more turned in the direction of Joypore. When a sufficient supply had been given in both directions, the large dam was cut and the Damoodah was allowed to return to its usual channel. The supplementary dams cost about Rs. 300, making total expenditure of Rs. 2,300 on this useful work. The area irrigated was 17,500 beegahs of rice, of which 2,500 belonged to Mr. Grose, and the rest to the villagers. The return on the crop was Rs. 3 a beegah, making a total return of Rs. 52,500 from land which, without this irrigation, could scarcely have been cultivated at all.

Correspondence on Irrigation.—The results of Mr. Grose's experiment were so encouraging that the Government of Bengal expressed a desire to see similar operations carried out in other districts. The Board of Revenue were requested to call for reports from the local authorities. In forwarding some of these they remarked that, though the system of irrigation referred to might be very successfully adopted by many landholders, it was useless to expect anything to be done by native landholders, and that no extensive system could be carried out without an irrigation law. They were unable, at that stage, from want of the necessary information, to recommend any particular localities for experiments. They suggested the heads of such a law in the following letter dated 6th January 1860. "The present Law, Act VI. of 1857, will enable the Government to take any land that may be necessary for canals, but it might further, the Board think, be requisite for the purposes of procuring the supply of water to give the Government the power of using and damming up shallow streams and rivers, the beds of which are now considered the property of individuals and used for their profit. The great object however, would be to regulate the levy of rents for the supply of water and to protect the works from injury, to which, in the Lower Provinces, they would be very liable from the jealousies and interests of parties. For this purpose a law similar to Act VII. of 1845 would be necessary; but with more stringent enactments than those in Sections V. and IV. of that Act, to provide for the protection of the works and for the punishment of any persons injuring them. An addition will also be required to the latter part of Section IV., and balances should be recoverable from any property of the defaulter by any process in force for the recovery of revenue or rent. When the canals shall have been completed, rules may be drawn up under Section II. of the Act, similar in their nature to those passed by the Lieutenant Governor of the North-Western Provinces, under date 31st May 1857."

1845, and published in P. P. 716 et seq. of the *Government Gazette* of that year." Captain J. P. Beadle, in his letters to the Board of Revenue and the Chief Engineer, points out the difficulties which stand in the way of irrigation in Bengal until a regular system is introduced. The Zemindars appreciate the advantage of a supply of water for irrigational purposes and distributed under Government superintendence. The risk of failure is too great to allow of individual landholders undertaking the execution of such works with the chance that the dam may not answer and that, if it does, there may be a difficulty in recovering from the other landholders a fair price for the water secured for them. It therefore remained for the Government to consider whether aid should be extended to cultivation on the low level lands which border the rivers in their delta channels, by the regular construction of works which, during the dry season, would secure a supply of water for a hot weather crop, and by legal enactment provide for the levy of a fair water rate.

The Superintending Engineer of the Behar circle writes. "I am not aware of any streams in Behar or Tirhoot that could be conveniently turned to account for irrigation purposes that are not so used. I am of course referring to petty irrigation schemes; projects such as the Soane one are not within the meaning of your Circular. In Behar the general irrigation arrangements are very extensive; the rivers that hold water during the dry weather are all made use of; reservoirs to retain the rain are scattered over the face of the country, but apparently, every one who owns a "Khuzana" (reservoir) does what he likes with it, creating unwholesome swamps as he likes and where he likes. If some degree of system could be introduced into this chaos, without interfering with vested rights, a very great good would result to the population of the country, for much of the Behar fever is without a doubt attributable to these artificial nests of malaria."

THE MAGHASSANI HILLS.

Bengal Records, No. XXXVI., Part II.

THE correspondence on the Maghassani Hills in Cuttack, considered with reference to the advisability of establishing a sanitarium on them, is published by Government in 1861. The inquiries therein detailed commenced about the end of 1858. The Super-

intendent of the Tributary Mehals, Cuttack, then wrote a memorandum on the subject drawn from all the available sources of information. Major Strange, G. T. Survey, determined the position and height of the Hill of Maghassani in March 1857, when he found it to be :—Latitude $21^{\circ} 28'$ North ; Longitude $86^{\circ} 24'$ East ; Height 3821·53 feet above the level of the sea ; Situation—38 miles from the station of Balasore nearly due West. Two hills are mentioned in the memorandum, situated immediately on the coast, and supposed to be higher than Maghassani. The Government of Bengal sanctioned the proposal to examine the hills of Maghassani, and Dr. Kendall was deputed to undertake the duty. He was accompanied for part of the time by Mr. V. H. Schaleh, Magistrate of Balasore.

Dr. Kendall's First Report.—For the first eight miles after leaving Balasore there is a good kutchra road ; thence to the foot of the Hills there is only a track or path practicable for bullocks or doolies. The country around is only slightly undulating. There are only one or two streams to be crossed, and these are nearly dry in the cold season. The summit of the Maghassani on which the platform is built, is of small extent, very rocky and not well suited for building purposes, but it slopes gradually down to the valleys beneath on its north-western aspect, and on this slope there is plenty of room for building. To the north-east of the platform, and distant as the crow flies from half a mile to a mile, are several peaks and ridges on which capital building sites are available ; one peak especially deserves notice, it being on the same level as the platform, and having an extensive area on its summit quite clear of trees or jungle, and free from rocks, small boulders only being scattered here and there ; the slope from this is gradual on every side, and it commands an extensive view. There is a supply of good water not far from the summit of the Hill. The climate during the period of Dr. Kendall's visit was cold and bracing, with a constant breeze from the North. The lowest point marked by the Thermometer was 44° at 7. A. M. on the 22nd January, and the highest during the day was 73° and at four o'clock on the afternoon of the same day it was 58° . The extreme range of the thermometer was 29° . Dr. Kendall's conclusions were, that a road might easily be constructed to the foot of the hills, and a road practicable for riding from the base to the summit at moderate expense ; that building sites could be found on the slopes of the ridges and peaks ; that a rich and extensive plateau, a few hundred feet below the summit of the Hill, could be made to supply the station above with nearly every requisite ; that all the materials for building were to be found on the Hill and the plateau ; that if a road existed the journey from Calcut-

ta to the Hill would be about 3 days, viz., by steamer to port of Balasore 24 hours, thence to foot of Hill 12 hours and thence to the summit 6 hours; and that, being only about 40 miles from the sea, the Hill was likely to have advantages peculiar to itself, being open to every breeze that blows. Dr. K. suggested that a second visit should be made to the Hill in the March following for the purpose of ascertaining the temperature during the hot weather. The Lieutenant Governor was of opinion that April or May would be more suitable for the purpose in view. The second expedition was undertaken by Dr. Kendall and Mr. Schalch as before, the latter remaining only 3 days, as his time would not permit of a further stay at the Hill.

Mr. Schalch's Report.—An average height of two feet would be sufficient for the road to the Hill; and a few small bridges would be required. The road from Poorhadeha to the Hill, a distance of twelve miles, is merely a pathway cut by the Surveyors. It surmounts, instead of flanking, the hills. A cart road could be constructed by gradually ascending the shoulders of the several hills, increasing the total distance to probably 14 to 16 miles. The Maghassani hill itself ascends too abruptly to admit of much building ground, but the other range would each afford a space about quarter of a mile wide by one long, amply sufficient for the construction of barracks and for parade ground for troops. The climate (in April) is most pleasant during the morning and evening, and though the heat is rather oppressive between twelve and two o'clock in a thin tent unprotected by shade no evil effects result from it. Neither Mr. Schalch nor Dr. Kendall suffered from fever—but the servants were almost all attacked on their return from the Hill. It was not clear whether they had caught fever on the hill itself or in the low country around where it was very prevalent at the time. The probabilities were in favour of the latter supposition. The average temperature is at least twelve degrees below that of the plains and of Bengal, which though not sufficiently low for a sanitarium for invalids would render the hills valuable for troops or for colonization. "For colonization" says Mr. Schalch "there would be a very considerable extent of ground, judging from the Report of the surveyors who have traversed the whole length of these ranges. There would appear to be a tract of country some forty miles in length, by ten or twelve in breadth, of a similar description to the portion we visited, and which I should think admirably adapted to the production of coffee, wheat, potatoes and other vegetables, all of which would find a ready and accessible market in Calcutta. I believe that besides the above, the tea plant and the vine might be successfully cultivated." He concludes his remarks by recom-

mending that a party of Sappers and Miners, attended by an intelligent Sub-Assistant Surgeon, should be sent to the Hills to clear a piece of ground, build a log house and cultivate the land with a view to test the spot practically.

Dr. Kendall's Second Report.—The results arrived at by Dr. Kendall are very much the same as those reported by Mr. Schalch. From the 7th to the 14th April thunder storms occurred daily, generally coming on between 4 and 8 P. M. during which period 9-9 inches of rain fell, the greatest fall being 5 inches in 3 hours. The air was often remarkably clear after rain. In the morning the breeze blew from the North and North West, and in the afternoon from the South and South West. The mean temperature is 13.2 degrees lower than that of Calcutta, and 13.66 degrees hotter than that of Ootacamund during the same month. The Maghassani Hills correspond very nearly to the Neilgherries as to formation and soil. They are more suitable for the establishment of a depôt for troops than for a sanitarium for invalids. They appear to be admirably suited, both by soil and climate, for coffee plantations.

Resolution of Government.—In a letter dated 21st September 1859 the Government of Bengal, while acknowledging the interest of the reports on these Hills, decide that they are not sufficiently encouraging to warrant the establishment of any military depôt on them. "With Parisnath hill 800 feet higher, much more easily accessible and free from all suspicion of feverishness, which cannot by any means be said of the Maghassani hill from what little experience has been obtained regarding it, the Lieutenant Governor is of opinion that it would be only waste of money to attempt to do anything further at present on the Maghassani, with a view to the formation upon it of a Depôt for European troops. The hill may, however, His Honor remarks, eventually be found worthy of attention on account of its suitability for the cultivation of coffee, &c."

REVISED ASSESSMENT OF THE MOORBAR TALOOKA.

Bombay Records, No. LXII, New Series.

THE Moorbar Talooka of the Tanna Collectorate, Bombay, is composed of 252 villages of which 4 are Inam, 5 held on the Izafut tenure and the remaining 243 are Khalsat, or villages under direct

Government management, divided between a Mamlutdar and a Mahalkurry, there being 155 under charge of the first and 97 under that of the second named officer. The revised assessment was effected by Captain J. Francis in 1860. Separate reports were drawn up on the two divisions of the Talook. The measurement of the district was commenced in the season of 1856-57. Moorbar is one of the most inland districts of the collectorate, and with the exception of part of Kolwun is more unfavourably situated with regard to natural facilities, for transporting its produce to the great markets on the coast, than any other district. The great market for the rice produced is Callian. The inhabitants depend almost entirely on agriculture for their subsistence. Employment in the Railway or Public Works is not popular among them. The land is more carefully tilled than elsewhere. The people are pretty well off, notwithstanding the absence of trade and manufactures. The existing assessment was favourable and Captain Francis assimilated the rates to those of the adjoining district of Nusrapoor. The villages were divided into classes of which the highest paid Rs. 4-8 and the lowest Rs. 2 assessment. The latter rate was only extended to a few jungly villages inhabited by Colies. The details of the new settlement are seen in the following table :—

Division or Charge	No. of Villages	Average of the Collections for ten years	Jumma-bund of 1859-60, if according to old rates.				Jumma-bund of 1859-60, according to Survey rates.				Survey rates on Waste.	Total Survey Kunal for the District.
			Rice.	Wurkus.	Total.	Rice.	Wurkus.	Total.	Rice.	Wurkus.		
Mamlutdar's	154	Rs. 67,480	Rs. 70,738	Rs. 10,140	Rs. 80,878	Rs. 68,018	Rs. 9,215	Rs. 77,233	Rs. 6,237	Rs. 83,470		
Mahalkurry's	94	45,136	47,052	6,429	53,481	45,332	6,615	51,947	3,564	55,511		
Total	248	1,12,616	1,17,790	16,569	1,34,359	1,13,350	15,830	1,29,180	9,801	1,38,981		
Increase	...	16,564	.....	...	.....	.....	...	.....	...	4,622		
Decrease	...	.....	.....	...	.....	4,440	739	5,179	...	.....

It shows a decrease of Rs. 5,179 as compared with what would have been realizable (in 1859-60) according to old rates; and there is also a deficit of Rs. 3,451 when compared with the collections of the preceding year, 1858-59. But against this reduction must be placed, as a set off, the revenue derivable under the survey from tracts set apart for grazing purposes, and from the dullé, cultivation hitherto unassessed, which have not been included in the above account; the comparison, then, will bear a more favourable aspect. A contrast with the average of the collections for the past ten years, gives an increase in favour of the settlement under review of Rs. 16,564.

The subject of the wurkus inams of the Jemadars Patels, and Mahars of some of the turufs of Morbar, is touched upon in this report. At Mr. Coles' revision of the assessment of this turuf, all the rice land held as Inam was regularly measured and recorded in the name of its respective holder; and all the wurkus land *under cultivation in the year* in which his measurement was made, was likewise measured and recorded in the same way. The extent and value of the Inam holdings thus recorded have, from that time to the present, been regularly shown in the accounts of the village as the deduction on that account. But under the system of triennial measurements of wurkus cultivation in force in this turuf and throughout the Morbar talooka, to the introduction of the settlement, the Tullatee has regularly measured the extent of such cultivation in the occupation of these Inamdars, and anything in excess of the value recorded in the accounts has been considered as liable to the payment of revenue. The cultivation of *wurkus* lands is subject to great fluctuation, owing to the necessity for occasional fallow, and the plan of recording as Inam simply the extent under cultivation in the year of survey, followed by Mr. Coles, is not fair. Captain Francis suggests, as the fairest way of settling the case, that each individual should be allotted the extent he is entitled to according to a calculation based on the value of the old "Tucka" measurements of the village; a plan similar to that followed with reference to certificates passed by the Inam Commission. The report here says. "The value of the Inams in these several villages, calculated in the manner above explained, appears to be as follows, viz. :—

According to Mr. Coles' survey	...	...	Rs. 1,242 2 5
Do. present survey	...	...	„ 1,276 3 6
Do. calculations based upon the tucka,	„	„	1,794 4 8

Looking at these results, it seems that there is a difference of only about Rs. 35 between Mr. Coles' and my own value of these Inams, but a difference of above Rs. 500 between our values, and that resulting from the calculation based upon the tucka; that is to say, supposing the latter plan of settling the value of these Inams to be adopted—and I would strongly urge its being so,—the Jemadars and people of this district will require to have wurkus land to the value of above Rs. 500 made over to them, in addition to that allowed by me at time of making the jum-mabundy." These views are entirely concurred in by the Revenue Commissioner and the Government. With reference to the tenures of Isafutdars, he suggests that they be offered a lease of their villages for 30 years and that they be informed that the

village will be resumed by Government unless they agree to the conditions specified. They claim the right to hold their villages at their present payments which are less than the amount fixed by the survey; but as they have no lease or sunnud conferring such right their claim is quite inadmissible. This arrangement is approved of by Government.

SETTLEMENT OF THE MOOLTAN DISTRICT.

THE settlement of this district of the Moollan division was effected by Mr. J. H. Morris. As he was obliged to go to England before its completion the remainder was done by Colonel Hamilton, the Commissioner. The report is preceded by a summary by Mr. Cust, Officiating Financial Commissioner.

The settlement was commenced in 1855 and completed in 1859. The Moollan district is situated at the southern extremity of the Buree Doab, between the rivers Sutlej, Ravee, and Cheenab. A small portion of one Tehseel lies across the Ravee in the Rechna Doab, having been detached since the first Summary Settlement from the Jhung district. It embraces an area of 5,866 square miles, much of which is barren and waste, and is divided into five Tehseels, three on the Cheenab, and two on the Sutlej. It contains one city of note, Moollan. When Maharajah Runjeet Sing succeeded in expelling the Mahomedan Nawabs, who in the decadence of the Empire made themselves independent of Delhi, the whole of this district came under the enlightened rule of Deewan Sawun Mul, from whose time all fiscal arrangements date. When his son Moolraj rebelled, and was taken prisoner, a Summary Settlement was made in 1849 by Mr. Edgeworth and Lieutenant H. James. This lasted to 1854, and was very unequal. It was succeeded by a second Summary Settlement, conducted by the Deputy Commissioners Mr. Henderson and Major Hamilton, which granted some reduction, and has worked fairly. This lasted till 1858, when Mr. Morris' new assessment came into force. For purposes of assessment each Tehseel was divided into three Chucks or natural divisions, viz., *Sylaba*, or low lands, subject to the influence of the river, *Highlands*, or Bar, and *Intermediate*.

The result of the settlement was a reduction of about eighteen per cent. on the rates. The jumma stood at Rs. 5,79,000 and was reduced to Rs. 4,70,000. The reasons which led to this re-

duction are the absence of trade in the district, the want of markets, the inferiority of soil, the variable nature of the river irrigation, the prevalence of nomad tribes, the uncertainty and insufficiency of canals, the scantiness of population and emigrations to Buhawlpore, the low value of property, the fixedness of the new jummas and the amount of land lately abandoned. The most serious of these disadvantages is the imperfect state of irrigation. The new settlement was very popular among the people; the rates were light and equally distributed. The Commissioner thought the reduction greater than was necessary but the peculiar circumstances of the district rendered this a fault on the right side. The rates levied were as follows :—

			On Cultiva- tion.			On assessable area.			On total area.		
Mooltan, ...	...	...	1	1	3	0	6	5	0	4	11
Shoojabad, ...	...	...	1	14	7	0	13	2	0	9	9
Ludran, ...	...	...	1	2	3	0	6	4	0	4	4
Mylsee, ...	...	...	0	13	1	0	4	3	0	2	9
Serai Siddhoo, ...	...	...	0	11	3	0	3	4	0	2	9

A light assessment was laid on the Sylaba lands, subject to the usual rules regarding diluvion, instead of annual measurements.

Tenures.—It has been asserted that there are no village communities in this district, but it is found that along the rivers, where population and cultivation have attained a degree of permanence, “common land” and regular communities do exist. Retiring from the river towards the Bar, or barren dorsal ridge, all trace of these communities is gradually lost. Each well has its separate owner unconnected with its neighbour—often a separate hamlet or hut, with no common land, interests or homestead, no ties of race, religion or kindred. As cultivation, population and wealth extend these infant communities will develop themselves on one of the well-known types, perhaps streaked by some local peculiarities. The most peculiar of the tenures in this district is the “Chukdaree;” the Chukdar or owner of the well being an intermediate person between the original proprietor of the soil and the cultivator. The prosperity of the district is attributed in great measure to the existence of these Chukdars. They are almost invariably wealthy kurars, who by the application of labour and capital have greatly improved the productive powers of the soil. They are a grasping and avaricious race, but they still make very fair landlords. Their net rent is called “Huq Kussoor.” It consists properly speaking of the profits realized after payment of the Government Revenue and all expenses. When not cultivating themselves the Chukdars invariably realize in

kind from the cultivators. The Kussoor is often equal to 50 per cent. of the Government revenue and sometimes more. "In Mooltan a permanent encumbrance is fixed on the estate, or a permanent alienation takes place of a portion of the soil. Capital makes its own terms. It may be that the proprietor still cultivates his acres, and pays a rent charge to the capitalist, who has sunk his well; or, the capitalist himself cultivates by his own oxen, or his own cultivators, and pays a quit rent to the proprietor, now no longer enjoying the right of cultivation, or the right of management. In the first case the Zemindar is the Malgoozar, and the "Kussoor-khwah" is nothing but a mortgagee annuitant: in the latter, the "Kussoor-khwah" is the Malgoozar, and the Zemindar is a Talooquahdar. But this incident of impoverished property does not affect the original tenure, any more than the introduction of a mortgagee, a lessee, a tenant, until the management changes hand: and, when that has taken place, the *de jure* proprietors receive their quit rent, and the *de facto* possessors manage the estate. There is nothing exceptional in this phenomenon of the weak exhausted race giving way to the strong and vigorous; it occurs all over the Punjab." The settlement of such a district is a very different thing from one of the rich and populous tracts of the Upper Doab. Regarding the state of tenures in the Punjab Mr. Cust, in reviewing the present report, says:—"Upon this fermenting mass has dropped our settlement, trying to reduce to principles most incongruous elements,—to maintain possession, yet not crush dormant rights,—to uphold contracts, and yet not work out injustice,—to give property, capital, and labor, their dues. In my opinion the regular Settlement has come on this part of the country too quickly: it would have been better to have let such matters adjust themselves under the loose discipline of the Summary Settlement, than to compel every body to declare and define their status. If the scores of cases that have come in appeal to this office are fair samples, the judicial work of the settlement has by no means been discharged satisfactorily. The elements for decision were strange, the issues raised unusual, the proofs vague and startling. Wells, and fractions of wells, appear to have become a medium of exchange, without a statement of area and soil; claims long worn out by lapse of time, or rendered uncertain by breach of custom, were hazarded; sunnuds of a ruler, or Kardar, produced as a proof of property. I consider that a wise discretion should, during the next ten years, be used by the Financial Commissioner, in allowing a re-trial in many cases where the issues have been wrongly drawn, and the nature of the case misunderstood by the parties." The new assessment had worked well for two years, up to the

date of report in August 1860. The settlement was sanctioned by Government for a term of ten years.

EXTERNAL COMMERCE OF BENGAL.

1860-61.

THE Report is signed by H. B. Devereux, Officiating Junior Secretary of the Board of Revenue. It refers to all the ports except Mergui, the Report on which was subsequently issued. The trade of Mergui is accordingly included in the following analysis.

Total Comparative Value:—

				IMPORTS.	EXPORTS.	TOTAL.
1857 58	...	...	...	16,80,61,961	16,66,30,808	33,46,92,769
1858 59	...	...	...	17,50,70,869	18,10,98,093	35,61,68,962
1859-60	...	...	...	23,89,69,414	15,05,97,714	38,95,67,128
Total, Rupees	...	...	...	58,21,02,244	49,83,26,615	1,08,04,28,859
Three years' average	...	...	...	19,40,34,081½	16,01,08,871½	36,01,42,953
1860-61	...	...	...	17,01,03,188	16,66,28,899	33,67,32,087
Increase or Decrease in 1860 61, on average of 3 years				.....	5,20,027½	.....
				.....	.....	2,34,10,866
Ditto	ditto	on	{ Increase	.....	1,60,31,185	.....
1859 60	...	...	{ Decrease	6,88,66,226	.....	5,28,35,041

This shews a decline in the total trade of Rs. 2,34,10,866 as compared with the average of the three preceding years and of Rs. 5,28,35,041 as compared with the previous year. If the trade of Mergui be added the imports were £17,011,431 and the exports £16,665,494.

Imports.—After deducting the imports made on account of the State, amounting to Rupees 35,99,826, of which Rupees 24,85,126 were under the head of merchandise, and Rupees 11,14,700 were treasure; and the imports of treasure on private account, which amounted to Rupees 4,21,81,774: the total value of goods imported in 1860-61 was Rupees 12,43,21,588. Of this

amount Rupees 10,37,39,458 was the value of imports from the British Isles, being Rupees 98,98,775 less than in 1859-60. The articles in which this decline is most marked is in cotton yarn and piece goods, machinery, iron, spelter, malt liquor, spirits, and wines. The imports from some foreign states, especially from America and China, also diminished. Salt, however, shews an increase to the value of Rupees 15,21,288. The importation of salt from the United Kingdom was greater in 1860-61 than in the previous year. There was an increase in the value of coal imported to the amount of Rupees 6,53,520, and of manufactured metals to the amount of Rupees 10,35,990.

Exports.—Deducting Rs. 3,58,391 of exports of bullion on account of the State and Rs. 1,76,73,856 exported treasure on private account, the total value of exported goods was Rupees 14,85,96,652, against Rupees 13,98,33,853 in 1859-60, making a net increase over that year of Rupees 87,62,799. This increase in the value of the exports took place chiefly in grain, gunnies and bags, hides, jute, lac, saltpetre, and sugar, and it is the more marked because there was a decrease of Rupees 96,50,723 in the value of opium exported. The true increase, therefore, which has taken place since 1859-60 in exports on private account, was Rupees 1,84,13,522. Hides and jute were made free by Act X. of 1860 and there was consequently an increase in exported hides of Rupees 19,97,043 and in jute of Rupees 12,05,765. The duty on saltpetre was raised from 3 per cent. on value exported to Rupees 2 per maund. In 1859-60, 516,427 cwts. were exported, chiefly at the former duty. Their value was Rupees 43,07,211 and they paid as export duty Rupees 2,96,104. In 1860-61, 438,791 cwts. were exported, but owing to the rise of price in the market, the value of this smaller quantity was Rupees 59,38,863, and the export duty of Rupees 2 per maund yielded Rupees 1,94,553, or Rupees 1,01,551 less than in the former year :—

Statement showing the aggregate value of the Principal Articles of Import into Calcutta by Sea, in 1860-61, compared with similar imports in 1859-60.

	1859-60.	1860-61.	INCREASE.	DECREASE.
Apparel	2188608	2014212	.....	474396
Beads	813623	502298	.....	311325
Books and Stationery	1554834	1595457	40623	.....
Cabinet-ware	87337	62816	.....	24521
Chanks	92024	115142	23118	.....
Cigars	295076	510828	215752	.....
Coals	240436	893956	653520	.....
Coffee	102863	139787	36924	.....
Cotton Twist and Yarn	11036759	10391287	.....	642472
Cotton Piece Goods	58737617	54039433	.....	4698184
Drugs	299219	319245	20026	.....
Dyes	614614	366323	.....	248291
Fruits and Nuts	1138574	1196654	58080	.....
Glass ware	709411	705044	.....	4367
Guns	71108	90276	19168	.....
Hides	672101	448403	.....	223698
Ice	52161	72899	20738	.....
Instruments, Musical	132793	167411	34613	.....
Jewellery	1212648	1093569	.....	119079
Machinery	7885699	7144393	.....	741306
Malt Liquors	2553784	886887	.....	1666897
Manufactured Metals	8121194	9160184	1035990	.....
Medicines	179073	138638	.....	40435
Copper	4066231	4076810	10579	.....
Iron	2833970	1645058	.....	1188912
Lead	89435	150851	61416	.....
Quicksilver	255058	97154	.....	157904
Spelter	1360125	731625	.....	628500
Steel	193328	142239	.....	51089
Tin	474147	727030	252883	.....
Yellow Metals	464790	768201	303402	.....
Military Stores	36209	32418	.....	3791
Naval Ditto	396448	835023	438575	.....
Oilman's Ditto	430972	225118	.....	205854
Paints and Colors	520374	432715	.....	87659
Perfumery	309116	235834	.....	73282
Porcelain and Earthen ware	238022	147671	.....	90348
Provisions	734700	768318	33618	.....
Salt	1890142	3511430	1521288	.....
Silk Goods	1140100	957813	.....	182287
Spices	1023036	1114815	391779	.....
Spirits	1235205	765222	.....	469983
Timbers and Planks	1159506	1332593	172997	.....
Umbrellas	407012	402340	.....	4672
Wines	2350718	1804440	.....	546269
Woolens	1530513	1092183	.....	438330
Sundries	6782882	5141828	.....	1641554
Merchandise	129125699	119496388	5345094	14974405
Treasure	78672699	38734059	.....	39938640
Total Rupees	207798398	158230447	5345094	54913045
Deduct Increase .. ..	.....	.....	.....	5345094
Net Decrease, Rupees .. ..	.....	.....	.....	19567951

Statement showing the aggregate value of the Principal Articles of Export from Calcutta by Sea, in 1860-61, compared with similar Exports in 1859-60.

	1859-60.	1860-61.	INCREASE.	DECREASE.
Apparel	80445	47219	...	33226
Books	586	1010	424	...
Cotton Goods	470936	308050	...	162886
Cotton Wool	666297	742389	86092	...
Cowries	5042	1008	...	4034
Drugs	239618	181694	...	57724
DYES { Indigo	15824505	16075111	250606	...
{ Other Sorts	665748	1099611	433863	...
Grain	15241566	17995364	2753798	...
Gunnies and Bags	4299626	5540702	1241076	...
Hides	3076770	5073813	1997043	...
Horns	93250	155320	62070	...
Jute	2901688	4107453	1205765	...
Lac	776737	1737286	960549	...
Naval Stores	162167	195596	33429	...
Oils	693442	603585	...	89857
OPPIUM { Behar	33584578	23933855	...	9650723
{ Benares	9626169	11785082	2158923	...
Provisions	236364	281086	44722	...
Salt-petre	4307211	5938863	1631652	...
Seeds	7041318	7622236	580918	...
Shawls, Cashmere	377866	412128	34262	...
SILK { Piece Goods	2979986	3116191	136205	...
{ Raw and Cocoons	8709906	10640620	1930714	...
Spirits, Rum	54522	91548	37026	...
Sugar	9377079	10874229	1497150	...
Tallow	142029	206358	64329	...
Tobacco	267638	217993	...	49645
Wax and Wax Candles	141521	163176	11655	...
Sundries	1857669	3023616	1165947	...
Total	123892269	132162792	18318618	10048096
Imports, Re-exported	8058297	6292501	...	1765796
Total	131950566	138455293	18318618	11813891
Treasure	10044791	17302753	7257962	...
Total, Rupees	141995357	155758046	25576580	11813891
Deduct Decrease ... ..	...	...	11813891	...
Net Increase, Rupees ... ..	...	...	13762689	...

Of the total export of *Cotton wool* in 1860-61, the quantity sent to Hong-Kong was Rs. 6,34,718 in value, and to other China ports Rs. 78,877. To the United Kingdom the value was only Rs. 550, and to North America Rs. 927. The only other ports to which it was exported were Hamburg Rs. 795, the Straits Settlements Rs. 26,397, and Moulmein Rs. 125.

As there was a mistake in the official returns of *Indigo* exported last year, we give the details in full.

	1859-60.	1860-61.	INCREASE.	DECREASE.
United Kingdom	11191850	11366525	174675	.....
America, North	947920	468757	.....	481163
Arabian Gulf	13593	579	.....	13014
Bourbon ... ..	.....	14525	14525	.....
Cape of Good Hope	523	.....	.....	523
France	2629245	3393918	764703	.....
Gibraltar	21398	.....	.....	21398
Hamburg	11735	60480	48745	.....
Persian Gulf	178462	207437	28975	.....
Suez	407820	114842	.....	292978
Bombay	421959	448698	26739	.....
Maasulipatam ... ..	.....	100	100	.....
Rangoon ... ..	.....	1220	1220	.....
Total, Rupees	15824505	16075111	1059682	809076
Deduct Decrease	.....	.....	809076	.....
Net Increase, Rupees	.....	.....	250606	.....

Duty-Collections.—

	IMPORTS.	EXPORTS.	TOTAL.
1857-58	1,10,55,698	15,60,247	1,26,15,945
1858-59	1,39,83,806	17,10,450	1,56,94,256
1859-60	1,81,35,037	22,32,400	2,03,67,437
Total, Rupees	4,31,74,541	55,03,097	4,86,77,638
Three years' average	1,43,91,513	18,34,365	1,62,25,879
1860-61	1,86,85,304	34,74,914	2,21,60,218
Increase over 1859-60, Rupees	42,93,790	16,40,548	59,34,338

The charges against customs were Rupees 6,26,946, or $2\frac{1}{2}$ per cent. on the gross collections. The net collections of customs duties, therefore, during 1860-61, were Rupees 2,21,60,218 against Rupees 2,03,67,437 in 1859-60. Of the amount collected in 1860-61, Rupees 1,86,85,304 were the produce of import duties, and Rupees 34,74,914 of export duties.

Shipping.—

ARRIVALS.	1859-60.		1860-61.		INCREASE.		DECREASE.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
Calcutta ..	896	616576	947	621997	51	8421	...	...
Chittagong ..	77	9920	66	9743	...	...	11	177
Cuttack ..	...	...	4	1414	4	1414	...	...
Balalore ..	9	823	15	1886½	6	1063½	...	...
Arracan ..	251	82549	226	112827	...	30278	25	...
Pooree ..	...	...	6	2294	6	2294	...	...
Tenasserim ..	359	93561	472	88817½	113	...	...	4743½
Total ..	1592	803429	1736	841970	180	43470½	36	4920½
Deduct Decrease ..	...	...	...	...	36	4920½	...	...
Net Increase, Ra. ..	...	...	...	...	144	38560	...	...
DEPARTURES.								
Calcutta ..	1018	661735	908	591449	...	...	110	70286
Chittagong ..	60	8896	100	14499	40	5603	...	...
Cuttack ..	...	...	4	1414	4	1414	...	...
Balalore ..	11	969	18	2237½	7	1268½	...	...
Arracan ..	252	83866	225	117394	...	33528	27	...
Pooree ..	...	...	6	2294	6	2294	...	...
Tenasserim ..	342	90061	408	78064½	266	...	...	12836½
Total ..	1683	846367	1869	807352½	323	44107½	137	83122½
Deduct Decrease ..	...	...	...	...	137	...	...	44107½
Increase in Ships ..	...	...	...	...	186 in Tons	Decrease	...	39014½
					page			

EXTERNAL COMMERCE OF BOMBAY.

1860-61.

THE Report is compiled by E. L. Jenkins, Esq., the Acting Reporter General. From 1st January 1861 the value of imports and exports was altered by the general Tariff introduced for the whole Empire. The duty on Spirits was raised by Act VII. of 1859 from Rs. 1½ to Rs. 3 per imperial gallon, and on Wines

from Re. 1 to Rs. 2 per imperial gallon. In respect to these articles, there was a falling off in the year 1859-60 as compared with 1858-59, and there was a further falling off in the year under review as compared with 1859-60. There was an increase in the Imports of Malt Liquor, but as compared with 1858-59 a decrease is noticeable. The duty on Malt Liquor was raised by the above mentioned Act from 5 per cent. *ad valorem* to 4 Annas per imperial gallon; or, in other words, a hogshead of Beer formerly paid Rs. 2½ as duty, while now it pays Rs. 13. In the Export of articles liable to duty there was an increase in the amount of collections at the Bombay Custom House to the extent of Rs. 1,12,021, chiefly owing to the increased Exports of Grain, Seeds, Cashmere Shawls, and Saltpetre. Most duty-free articles are entered at the value declared by the owner.

The total value of Imports in 1860-61 was Rs. 18,62,63,013, whereas in the preceding year the value amounted to Rs. 19,87,49,906, showing a decrease in the value of Imports to the extent of Rs. 1,24,86,893. There was an increase in Merchandize to the extent of 77,151 Rs.; in Treasure a decrease to the extent of 1,15,02,044 Rs.; in Horses a decrease to the extent of 10,62,000 Rs. The total value of exports in 1860-61 was Rs. 19,48,80,399, while in 1859-60 it was Rs. 15,51,54,526, showing an increase of Rs. 3,97,25,873.

The following shows the value of the trade of the Port of Bombay for the last five years compared with 1860-61.

Nos.	Years.			Imports.	Exports and Re-Exports.
				Rs.	Rs.
1	1855-56	...	...	11,57,73,041	10,29,19,161
2	1856-57	...	...	14,48,46,391	12,57,93,939
3	1857-58	...	...	16,31,60,036	14,67,53,599
4	1858-59	...	...	18,38,15,410	15,95,08,825
5	1859-60	...	...	19,87,49,906	15,51,54,526
				80,63,44,784	69,01,30,050
	Five Years' average Value			16,12,68,957	13,80,26,010
	Value for 1860-61			18,62,63,013	19,48,80,399
	Increase in 1860-61...Rs.			2,49,94,056	5,68,54,389

IMPORTS.—The trade was from the following places :—

	Merchan- dize.	Bullion and Specie.	Total.	Increase.	Decrease.
From	Rupees.	Rupees.	Rupees.	Rupees.	Rupees.
FOREIGN OR EXTERNAL PORTS.					
United Kingdom	6,04,20,838	25,00,798	7,10,81,636	..	24,15,080
Aden	11,50,715	18,10,343	29,61,061	..	1,24,047
Africa, Coast of	13,20,729	4,08,210	17,97,939	..	2,85,040
America, North ..	4,32,117	..	4,32,117	..	1,33,972
Amsterdam	3,60,682	13,51,500	17,12,182	..	2,63,716
Arabian Gulf ..	3,80,502	..	3,80,502	2,04,043	..
Antwerp	31,082	..	31,082	31,082	..
Batavia and Java	1,323	..	1,323	..	31,897
Bombay	6,242	800	6,042	1,673	..
Cape of Good Hope	70,310	31,40,030	32,10,355	23,55,880	..
Ceylon	..	..	..	..	..
Germany	..	4,500	4,500	..	9,500
Gibraltar	..	..	..	..	..
Genoa	32,202	..	32,202	..	1,36,113
Hamburg	87,04,988	00,26,107	1,78,21,095	..	24,21,986
Hong-kong	3,97,681	21,43,300	25,40,981	10,08,714	..
China and other Ports	7,40,985	50,800	7,97,785	..	5,80,920
France	..	..	..	..	36,051
Madagascar	..	..	..	..	1,200
Manilla	44,807	7,07,490	8,12,287	..	4,21,120
Mauritius	..	..	..	..	..
Naples	..	..	..	..	..
New South Wales	6,38,198	34,90,137	41,28,335	14,91,781	..
New Zealand	11,300	..	11,300	10,790	..
Penang, Singapore, and	10,17,103	1,04,021	10,17,103	..	87,860
Straits of Malacca	35,92,570	28,85,571	64,78,147	..	14,48,418
Persian Gulf	..	..	..	..	..
Rotterdam	85,557	..	85,557	..	1,98,063
Siam	1,41,871	..	1,41,871	..	11,379
Somerset and Meckran	2,08,623	..	2,08,623	2,08,623	..
St. Helena	5,40,144	3,17,15,425	3,22,55,569	..	1,25,45,018
Suez	1,33,269	40,70,325	1,33,300	1,33,300	..
Sweden	..	..	..	..	..
INDIAN OR HOME PORTS, INCLUDING PORTS NOT BRITISH.					
Calcutta	00,96,461	..	1,10,75,780	44,04,414	..
Moulmein	1,52,713	..	1,52,713	..	11,002
Rangoon	52,142	..	52,142	..	37,370
Fort St. George	44,193	..	44,193	..	1,13,800
Malabar and Canara, British and Foreign	1,31,77,967	27,003	1,32,05,020	21,42,068	..
Cutch	85,08,704	1,51,475	87,20,043	..	18,00,444
Goa, Damaun, and Diu	5,27,325	13,252	5,40,577	..	22,074
Concan, Foreign	58,559	..	58,559	..	30,552
Guzerat, Foreign	25,33,865	..	25,33,865	..	15,45,234
Total Company's Rupees	12,23,70,870	6,38,92,143	18,62,63,013	1,22,35,107	2,47,22,000
Deduct Increase					1,22,35,107
Net Decrease in 1900-01,					1,24,96,803

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EXPORTS.—

	Merchan- dize.	Bullion and Specie.	Total	Increase.	Decrease.
To	Rupees.	Rupees.	Rupees.	Rupees.	Rupees.
FOREIGN OR EXTERNAL PORTS.					
United Kingdom	7,09,00,331		7,09,00,331	1,00,59,606	..
Aden	10,43,729	30,200	10,79,929	1,12,600	..
Africa, Coast of	6,03,601	28,000	7,22,201	..	5,07,067
America, North	11,93,500		11,93,500	3,18,144	..
Amherst				20,756	..
Amsterdam	1,77,326		1,77,326	..	..
Antwerp	..			..	..
Arabian Gulf	15,01,769	72,900	15,74,669	21,366	1,30,960
Batavia and Java	53,551		53,551	..	..
Cape of Good Hope				3,40,518	..
Ceylon	1,69,313	21,62,625	25,31,938	..	..
Genoa				..	5,14,083
Germany	2,33,647		2,33,647	..	1,33,000
Gibraltar				2,83,46,200	..
Hong-kong	7,41,40,073	2,18,456	7,43,59,129	..	84,23,428
China and other Ports	68,45,261	3,25,315	71,70,576	..	..
France	16,10,681		16,10,681	2,18,063	..
Madagascar				..	37,342
Hamburg	1,40,320		1,40,320	..	2,77,453
Lisbon				..	..
Manilla				..	..
Mauritius	5,04,580	5,04,000	10,08,580	6,81,929	..
New Zealand	900		900	900	..
New South Wales	1,200		1,200	..	750
Norway	78,300		78,300	78,300	..
Pegu				..	..
Penang, Singapore, and Straits of Malacca	10,47,322	1,37,073	20,84,395	..	6,38,005
Persian Gulf	62,15,365	4,51,159	66,66,525	8,50,577	..
Rotterdam				..	..
Siam	1,15,820		1,15,820	..	2,29,841
Soumeance and Meckran	1,62,577	4,000	1,66,577	20,222	..
Suez	12,58,870	2,000	12,60,870	2,58,330	..
Sweden	241		241	241	..
Trieste				..	..
INDIAN OR HOME PORTS, INCLUDING PORTS NOT BRITISH.					
Calcutta	18,50,001	15,600	18,71,601	48,853	..
Moulmein	20,215		20,215	20,215	..
Rangoon				..	8,692
Port St. George	1,80,207	1,00,525	2,86,732	..	1,12,645
Malabar and Canara, British and Foreign	66,95,329	67,81,745	1,34,77,074	26,00,407	..
Cutch	26,53,228	25,36,440	49,89,674	..	21,11,613
Goa, Daman, and Diu	6,26,784	1,10,032	6,37,716	20,752	..
Concan, Foreign	40,749		40,749	..	4,419
Guzerat, Foreign	3,22,796	99,500	4,22,326	..	2,34,883
Total Company's Rupees	18,13,87,272	1,34,93,127	19,48,80,399	5,31,38,291	1,34,12,418
Deduct Decrease	..	..	..	1,34,12,418	..
Net Increase in 1860-61	..	..	..	3,97,25,873	..

CONTINENTAL PORTS.—On the line of coast from Cambay to Goa there are 50 Government Ports within the Bombay Presidency. Of those only which have trade with Foreign Ports or with Indian Ports beyond the Presidency, are details given.

Names of Ports.	Amount of Im- port Customs received.			Amount of Ex- port Customs received.			Total Amount of Customs received.		
<i>Guzerat Division.</i>	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Broach	1,085	11	11	11,587	7	6	13,273	3	5
Bulsar	1,145	9	4	4,273	4	8	5,418	14	0
Chowrasy ... ..	.....			249	5	0	249	5	0
Dholera	3,446	5	1	38	10	7	3,484	15	8
Gogo	695	0	8	174	13	7	869	14	3
Jumbooseer	83	7	8	313	3	7	396	11	3
Murrolee ... ..	.....			857	13	9	857	13	9
Olpar ... ..	.....			136	2	11	136	2	11
Parchole ... ..	.....			33	12	0	33	12	0
Parnerah	575	14	7	2,926	0	4	3,501	14	11
Surat	1,761	0	7	13,040	9	8	15,701	10	3
Wagra ... ..	.....			65	8	3	65	8	3
Total	9,393	1	10	34,596	11	10	43,989	13	8
<i>Concan Division.</i>									
Alibaugh	498	10	6	446	11	5	945	5	11
Bassein	2,473	14	8	1,389	6	5	3,863	5	1
Caranjah	52	8	8	4,337	5	6	4,389	14	2
Ghorebunder	11	4	10	2,480	10	3	2,491	15	1
Malwan	752	8	2	42	15	2	795	7	4
Oomergaum	45	13	10	223	8	0	269	5	10
Panwell	15	0	0	5,105	5	3	5,120	5	3
Rajpooree	186	9	3	12	11	6	199	4	9
Rutnagherry	1,590	10	11	21	0	4	1,611	11	3
Sooverndroog	1,403	14	1	688	15	5	2,092	13	6
Tarrapore	2,798	14	7	2,147	4	2	4,946	2	9
Trombay	184	14	3	10,416	2	3	10,601	0	6
Unjunwell	699	3	1	0	13	2	700	0	3
Vingorla	1,786	11	3	347	8	1	2,134	3	4
Viziadroog	2,098	14	9	541	8	1	2,640	6	10
Total	14,599	8	10	28,201	12	0	42,801	5	10
Total Ports.									
Grand Total	23,992	10	8	62,798	8	10	86,791	3	6

The Import Customs duty is almost entirely levied on Coconuts, Seeds, Timber, Salt, and Salt Fish. The amount of Export duty levied is, on the whole, a large item; 3 Pies per Indian maund of Salt is levied on Exports to British Ports on the Malabar Coast; 1 Anna per Indian maund is levied on Exports to Foreign Ports on the Malabar Coast.

COTTON.—The quantity of Cotton imported at Bombay in 1860-61 was 34,59,27,971 lbs.; and the value, calculated at the rate of Rs. 108 per Bombay candy of 784 lbs. avoirdupois, was Rs. 4,74,74,323. During the preceding year the quantity imported was 28,66,31,320 lbs. of the value of Rs. 4,73,58,451. Cotton is for the most part exported to Great Britain and China. The quantity exported in 1859-60 and 1860-61 was as follows :—

Names of Places.	1859-60.		1860-61.	
	Quantity.	Value.	Quantity.	Value.
	lbs.	Rupees.	lbs.	Rupees.
To Great Britain ...	24,11,93,027	3,65,03,948	27,88,68,126	5,35,23,208
To China ...	5,81,52,248	1,27,03,326	6,61,44,785	1,44,38,732
To other places ...	2,19,18,742	38,49,896	1,03,80,983	18,29,704
Total Rs. ...	32,12,64,017	5,30,57,170	35,53,93,894	6,97,91,644

Full details of the places whence the cotton *imported* into the port of Bombay from the last five years will be found in the following table :—

Statement showing the Quantity of Cotton Imported into the Port of Bombay for the last Four Years, distinguishing the Districts from whence it was brought to Bombay.

FROM WHENCE.	1857-58.		1858-59.		1859-60.		1860-61.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Great Britain	...	...	...	...	...	...	...	...
Guzerat	8,48,87,186	1,59,16,347	9,22,37,428	1,61,18,067	11,40,96,124	2,01,92,391	14,57,22,315	2,01,13,080
Cochin (the produce of the Districts of the Ghauts)	5,53,74,816	88,99,524	8,58,72,855	1,39,65,292	8,27,57,809	1,27,59,824	9,09,67,899	1,20,55,074
Malabar and Canara	2,91,12,553	47,90,208	1,78,22,330	29,36,811	3,58,32,633	5,77,28,291	5,61,82,181	76,36,820
Cutch	3,31,80,196	57,13,423	4,14,49,616	76,26,302	5,35,08,196	85,82,469	5,32,44,520	75,21,406
Africa, Coast of	336	30	...	...	...	500	...	...
Arabian and Persian Gulf, including Aden	97,720	10,980	2,25,400	24,660	3,360	12,090	1,33,808	19,200
Hong-kong	...	...	336	14	1,11,734	...	...	...
Kurrachee	2,34,192	40,326	13,058	2,398	...	...	32,572	8,805
Gwa	27,300	8,675	1,80,552	17,373	2,71,404	32,883	5,86,236	82,826
Mauritius	65,522	7,500	...	...	...	...	47,656	6,900
Sonneance & Meckran	1,680	225	...	...	...	...	...	...
Total	20,29,31,531	3,53,82,233	23,77,88,595	4,27,04,917	28,66,31,320	4,73,58,451	34,59,27,971	4,74,74,323

Details of the quantity and value

TO WHAT PLACE.	1857-58.		1858-59.	
	Quantity	Value	Quantity.	Value.
	lbs.	Rupees.	lbs	Rupees.
Aden	46,121	6,850	50,738	6,750
Africa, Coast of	2,29,880	29,100	30,128	4,220
America, North	13,888	4,050	...	...
Amsterdam	27,72,221	3,63,600	15,71,136	1,85,700
Antwerp	10,26,618	1,83,330	...	...
Arabian Gulf	4,89,482	73,550	3,14,393	61,125
China { Hong-kong	1,31,18,919	26,53,951	3,31,28,589	68,12,770
{ Other Ports	58,18,082	11,12,518	51,79,160	10,26,792
France	98,53,292	13,35,006	41,524	8,759
Genoa	49,70,560	6,37,500	...	...
Germany	10,04,321	1,54,340	5,91,272	1,06,120
Gibraltar	34,29,112	4,37,125	17,89,972	2,47,630
Great Britain	18,53,56,215	3,13,36,005	15,72,89,419	2,98,64,309
Hamburg	11,55,998	1,52,450	...	...
Madagascar ... ..	...	...	...	...
Mauritius	6,720	1,400	...	...
Norway ... ..	...	...	...	...
Penang, Singapore, and Straits of Malacca	56,17,948	9,30,876	28,74,312	5,60,531
Persian Gulf	41,149	3,948	2,65,566	38,551
Rotterdam	8,93,760	2,28,000	...	...
Siam	1,20,341	18,420	...	...
Trieste	29,22,161	4,16,720	...	...
Calcutta	9,18,428	1,60,975	33,72,499	6,42,877
Malabar and Canara, British	5,04,840	97,046	8,960	1,000
Malabar, Foreign	14,784	1,320	63,728	6,400
Ports in Cutch	1,260	165	784	120
Goa, Daman, and Diu	1,876	310	1,232	205
Guzerat, British and Foreign	20,140	3,240	...	...
Concan do. do.	1,232	134	1,442	205
Scinde	52,864	5,575	17,920	1,575
Total	24,07,33,287	4,03,77,704	20,69,15,674	3,95,75,639

Exported are seen below :—

1859-60.		1860-61.		Average of Five Years.	
Quantity.	Value.	Quantity	Value.	Quantity.	Value.
lbs.	Rupees.	lbs.	Rupees.	lbs.	Rupees.
2,27,640	38,610	1,11,272	18,020	95,917	15,238
42,672	6,540	18,760	2,025	64,322	8,389
8,66,712	1,11,496	...	...	1,76,120	23,106
10,38,128	1,46,700	7,84,000	1,28,000	15,39,324	2,03,860
...	...	...	...	8,21,632	1,18,340
4,32,215	85,215	4,90,176	82,728	3,85,936	65,239
5,55,36,880	1,21,99,711	6,61,44,785	1,44,38,732	3,37,05,841	72,21,033
26,15,368	5,03,615	...	...	97,56,621	16,25,670
9,41,914	1,52,510	14,29,288	2,83,569	28,14,000	4,03,131
...	...	...	...	15,19,818	1,94,740
54,31,080	7,47,680	14,13,552	2,32,847	16,88,646	2,48,197
7,33,236	1,30,700	...	...	12,85,760	1,75,531
24,11,93,027	3,65,03,948	27,88,68,126	5,35,23,208	21,86,16,939	3,66,24,247
21,62,560	4,23,525	11,64,240	1,46,320	10,97,734	1,70,119
392	80	...	...	78	16
812	115	11,760	2,850	6,260	1,233
...	...	5,89,960	75,300	1,17,992	15,060
74,96,664	15,31,880	34,60,464	6,96,168	40,04,717	7,62,544
69,475	6,795	91,112	15,262	97,384	13,241
...	...	...	...	3,31,358	65,065
...	...	...	...	24,069	3,684
...	...	...	...	8,24,886	1,20,054
24,32,752	4,64,709	6,88,027	1,31,315	16,05,930	2,96,771
...	...	12,740	1,181	1,06,551	19,958
...	...	7,840	700	17,270	1,684
172	35	61,488	9,475	12,920	1,975
...	...	...	...	622	103
1,344	185	1,288	70	4,793	715
5,214	521	14,112	1,169	4,870	448
32,760	2,600	30,604	2,705	29,969	2,731
32,12,64,017	5,30,57,170	35,53,93,894	6,97,91,044	28,07,57,985	4,84,02,180

CUSTOMS DUTY.—The financial results of the Customs, Salt duty and Opium administration are seen below, shewing a net increase over the previous year of Rs. 80,18,946.

	1859-60.			1860-61.		
	Rs.	A.	P.	Rs.	A.	P.
<i>Receipts.</i>						
Import Duty	81,51,538	0	11	80,55,492	14	1
Export Duty	6,51,944	13	5	7,48,985	7	8
Duty on Spirits imported from beyond the Presidency	3,59,021	5	1	2,53,875	5	4
Still Head Duty on Spirits manufactured under Act III. of 1852 in the Presidency	5,36,977	10	0	5,02,995	9	2
Duty on Salt imported by Land and Sea	1,71,162	7	11	1,78,954	10	9
Excise Duty on Salt removed from the Salt-Pans in the Presidency	34,35,791	8	10	30,10,300	3	5
Frontier Duties	68,608	3	11	65,017	4	8
Transit Duties	49,521	5	2	51,029	1	11
Import Duty on Tobacco	73,859	3	7	1,32,101	4	3
Special do do	1,12,555	0	11	1,12,183	3	0
Ground Rent on Salt Pans and Proprietary Share in the sale proceeds of Salt	1,17,115	15	0	91,123	3	8
Gunza, Licence Fees	3,641	8	0	4,117	8	0
Tobacco do	300	0	0	298	0	0
Profits by the sale of Confiscated and undervalued Goods and other Petty Items	9,522	8	0	5,320	13	8
Warehouse Rent	11,424	5	6	15,511	7	5
Crane Collections	2,500	0	0	3,433	5	4
Registry Fees in Guzerat and Concan	5,578	12	0	5,625	15	0
Anchorage Fees in Guzerat	740	11	0	647	13	6
Hard Fees	9,581	6	9	12,344	4	5
Total	Rupees	1,40,76,774	14 9	1,32,48,460	7 3	
Opium Pass Fees		1,53,62,700	0 0	2,44,00,600	0 0	
Interest on Opium Hoondies		21,899	6 6	41,598	8 3	
Total	Rupees	2,94,61,374	5 3	3,76,90,658	15 6	
Straits Light Dues		4,809	3 0	5,983	13 0	
Total	Rupees	2,94,69,183	8 3	3,76,96,642	12 6	
Port Fund of the Port of Bombay		1,15,009	8 3	1,23,972	8 3	
Port Fund of the Gulf of Cambray		26,188	0 0	27,856	9 0	
Total	Rupees	2,96,10,381	0 6	3,78,18,471	13 9	
<i>Fees collected by the Master Attendant</i>						
Registry Fees		3,516	10 0	5,152	4 0	
Measuring Fees		6,106	0 0	9,542	0 0	
Pilotage Fees		43,457	8 0	1,04,437	8 0	
Transporting Fees		8,835	0 0	20,510	0 0	
Pilots attendance Fees		650	0 0	1,080	0 0	
Total	Rupees	61,565	2 0	1,40,721	12 0	
Grand Total	Rupees	2,96,74,946	2 6	3,79,89,193	9 9	
Deduct—Drawback, Refunds, Establishments, and other Charges		11,58,802	15 4	14,54,104	2 7	
Net Amount	Rupees	2,85,16,143	3 2	3,65,35,089	7 2	

SHIPPING—The number of Vessels which arrived and departed during the year 1860-61 was as follows :—

Arrivals.

Description					Vessels.	Tons.
Under British Colors	...	...	...	...	432	3,37,161½
„ American „	...	...	...	...	37	35,563
„ French „	...	...	...	...	35	16,029
„ Other „	...	...	...	...	49	24,420½
Total	...	...	...	...	553	4,13,173¾
Steamers	...	...	...	...	87	69,581½
Total Vessels and Steamers	...	...	...	...	640	4,82,755¼
Native Craft	...	...	...	...	7,367	2,87,312
Grand Total	...	...	...	...	8,007	7,70,067¼

Departures.

Description					Vessels.	Tons.
Under British Colors	...	...	...	...	425	3,39,013¾
„ American „	...	...	...	...	36	34,836
„ French „	...	...	...	...	34	14,203¾
„ Other „	...	...	...	...	35	16,145¼
Total	...	...	...	...	530	4,04,198¾
Steamers	...	...	...	...	80	59,538¼
Total Vessels and Steamers	...	...	...	...	610	4,63,737
Native Craft	...	...	...	...	5,425	2,46,305
Grand Total	...	...	...	...	6,035	7,10,042

The Fourth Part of the Report contains statements of the shipping and trade of Kurrachee furnished by the Collector of Customs, who is not under the control of the Bombay Commissioner of Customs. The separate Report of the Trade of Sind will be analysed when published.

ADMINISTRATION OF PEGU.

1860-61.

THE report on the administration of Pegu for the year 1860-61 is submitted as usual by Colonel Phayre.

Civil Justice.—The number of appeals was 740 ; of original suits 21,365 ; and of miscellaneous suits 3,126, being a decrease of 220 appeals, 1,930 original suits and 274 miscellaneous cases. The decrease was mainly owing to the introduction of stamps on law papers from 1st June 1860. The value of property in litigation was Rs. 24,21,109, of which nearly half was litigated in the district Court of Rangoon alone. The percentage of Europeans who resort to the courts is 52.5, of Burmese 16, of natives of India 16.1, and of Chinese 2.4.

Criminal Justice.—The number of prisoners brought to trial was 20,596. The number convicted was 12,898, and acquitted 7,357. The proportion of convictions to arrests was 62 per cent. The number of prisoners remaining under trial was 191, less than 1 per cent. of those brought to trial. Over 15,000 witnesses were examined, of whom three-fourths were detained one day. There were forty-two appeals in criminal cases to the Commissioner's Court. In 38 of these the decisions of the lower Courts were confirmed. In the Sessions Court 77 prisoners were put on their trial ; 53 were convicted ; 24 were acquitted and 17 remained under trial at the close of the year.

Police.—Crimes of the first class, were 45 in number against 50 in 1859. Of the 12 dacoities with murder 9 occurred in the Prome district, and as was the case in previous years the gangs came from the Burmese territories. Of 22,292 persons supposed to have been concerned in crimes of every description 20,593 were arrested and brought to trial. Of these 12,998 were convicted, 7,357 acquitted, and the rest otherwise disposed of. The number of convictions was 1.2 in 100 of the whole population. The property stolen amounted to Rs. 1,65,495, of which only to the value of 36,328 was recovered. The general decrease of crime was 9 per cent. 75838

Jails.—The buildings remained in the same state as before. At some stations the convict labour was turned to good account for the improvement of the towns, by drainage and the filling up of swamps. Indoor labour was carried out as far as practicable. No attempts were made to instruct the convicts in reading and writing. Of the Burmese prisoners 65.98 could read or write or

both, of the Karens 25'00, of the Chinese 57'76 and of other Asiatics 71'00. The average cost of each prisoner was Rs. 89-6-2 per annum. In all the jails except those of Rangoon and Tharawaddy the cost was moderate.

Revenue.—The revenue demand for the year amounted to Rs. 51,52,035. That for the previous year was only Rs. 45,88,705. The local taxation not included in the imperial revenue was Rs. 2,09,194.

Land Revenue.—The year was favourable for agriculture. An increase occurred in the cultivated area of almost every province. More land was taken up; and new land cultivated in former years tax free, became liable to assessment. In Pegu the land is held allodially, and the estates in the Rangoon district are on the average less than nine acres each. It is found to be difficult to induce so many small proprietors to be all of one mind, and the majority of them, for the present, do not see the advantage of leases for a term of years. In the report of last year it was stated that the cultivators of the country refused to sell their rice except at very high prices. The harvest of 1860-61 was very plentiful; the consequence has been that notwithstanding a considerable increase in the export of rice during the early part of 1861, prices have been lower. The average price of cargo rice, for 100 bushels, during 1859-60 was Rs. 147; in 1860-61 it was Rs. 102.

The export for the two years was as follows :

EXPORTED	1859-60. Tons.	1860-61. Tons.
By sea,	40,847	80,263
By river,	39,606	53,171
Total, ...	80,453	133,434

The greater portion of the grain sent by river is unhusked, so that the quantity does not represent the same amount of grain as that exported by sea, which is all cargo rice. But in addition to the quantity sent by river which passes through the Custom House, it is estimated that from ten to twelve thousand tons of unhusked rice, are carted across the frontier at various points.

Capitation Tax.—The amount of increase on this tax was about six and a half per cent. The rates remained the same and the increase was due to an increase of population and more accurate returns.

Fisheries.—There was a small increase.

In *Excise* there was a considerable decrease.

The *Customs* showed an increase of Rs. 2,75,000 caused by a greater quantity of goods being imported from the United Kingdom, and partly also by the higher rate of duty on cotton twist which took effect in March 1860. The value of imports and exports by sea and on the Frontier for 1859-60 was £2,879,865, and for 1860-61 £3,056,329.

The *Income Tax* for the nine months ending 30th April 1861 amounted to Rs. 129,364. The tax yielded fully as much as was anticipated throughout the province. It took effect only in the chief towns.

Education.—The Government school at Rangoon was inspected and reported upon by the local committee during September 1860. The committee recommended that it should be broken up, and the amount allowed for its support disbursed in grants to the various private schools in the province. The missionary and other schools continued to progress.

Public Works.—The amount allotted for 1860-61 was ten and a quarter lakhs. This was not exceeded. Iron roofing to the value of about seventeen thousand rupees was received and used during the year. At Tounghoo considerable progress was made with the redoubt under construction. At Thayet-myo temporary buildings were erected in lieu of artillery barracks destroyed by fire. At Rangoon the powder magazine was completed. Other buildings in progress were completed.

Electric Telegraph.—A line was extended from Prome across the Arracan hills to the island of Ramree and thence to Akyab, which brought Rangoon into communication with Calcutta. A line to connect Rangoon with Moulmein was projected.

Marine.—A considerable reduction was carried into effect. The cost of the Flotilla was Rs. 1,86,215 and of the Dockyard Rs. 2,46,599. The receipts for private freight and passengers amounted to Rs. 47,282, and the *pro forma* charge for Government freight was Rs. 1,38,239. The earnings of the Flotilla more nearly covered the expenditure in 1860 than in any former year. The receipts from the Port funds amounted to Rs. 41,927 and the disbursements to Rs. 60,108. The number of vessels that arrived at Rangoon and Bassein during the year was 449 with a tonnage of 151,218. The number of departures was 464 with a tonnage of Rs 145,350½.

Financial.—The revenue increased five lakhs and the expenditure was reduced upwards of half a lakh.

Political.—Friendly relations were maintained with the King

of Burmah. In February 1861 an entire Shan tribe from the petty state called Tsaga, on the North East quarter of the Toungoo district, was attacked by a Burmese force and fled into British territory. They settled in Toungoo. Affairs in Yunnan were still disturbed. A regular coinage was for the first time issued as a currency by the Burmese Government. The coin is of silver, weighing about 252 grains troy. It has on the obverse a peacock, the device of the Royal Family of Burmah, and on the reverse the date of the present King's accession to the throne.

Military.—During the year 1860-61 a considerable reduction was made in the strength of the native infantry force, and of the Artillery hitherto maintained in the Province. The Pegu Light Infantry Corps was broken up. It was raised in 1852-53 by Lieutenant Colonel Nuthall of the Bengal Army, and was composed principally of natives of Pegu with a few Malays. The officers were for the most part appointed to the Police. Many of the men also took service in that force. The number was reduced to 188 at the latest date. It was decided to mass the troops for the future at the three principal positions Rangoon, Thayet-myo and Toungoo.

Population.—The population amounted to 1,041,340 against 948,731 in 1859. The increase was partly due to the more complete returns obtained and partly to a great immigration from the Burman territory. The number of men was 335,017, of women 316,419, of boys under 15 years of age 205,597, and of girls under 15 years of age 184,307. The population of Rangoon and the suburbs was found to be 55,884.

Forests.—Large tracts were examined. A canal was dug to form a channel for the waters of the Shway-lay stream in the southern part of the Prome district. On that stream and its tributaries there were 140,000 first class teak trees. The number of logs actually brought down during the year was 13,947. In addition to these 3,400 logs, which had been paid for, were dragged down to the water's edge, and only required to be floated off when the water rose. The number of logs actually sold was 8,834, against 15,416 last year. The average rate realized was Rs. 25 against Rs. 15 the previous year. About 4,200 logs remained in store at the depôts on 30th April 1861. The value of timber on hand in the forests and at the depôts, and the value of timber sold but of which the price had not been realized on 30th April 1861, was Rs. 1,08,000.

Survey.—During the year ending 30th April 4,000 square miles of country were surveyed, and one hundred and seventy-seven miles of river triangulation completed. The total area

surveyed to that date was 30,855 square miles. The total cost of survey was Rs. 3,01,056.

Vaccination.—Very little success was met with during the year.

Hospitals and Dispensaries.—In the Rangoon dispensary 129 in-door and 592 out-door patients were treated during the year. At the dispensary of Thayet-myo 47 in-door and 642 out-door patients were treated.

Miscellaneous.—The position of the Port of Dalhousie was found to be unfavourable. The custom house was withdrawn to Bassein, about 70 miles up the river. The soldiers' garden at Rangoon maintained its usefulness. A regiment of Volunteers was embodied, consisting of 13 officers and 175 rank and file. Two members of the Police and Finance Commissions, Mr. R. Temple of the Bengal Civil Service, and Colonel H. Bruce, C. B., visited the province of Pegu during the year, and embodied their views in a report upon the affairs of the four provinces of British Burmah. Nearly all the reductions and improvements in the administration recommended by them had been, or were being, carried out. A geological survey of Pegu and the adjoining provinces was sanctioned. Thirteen salt springs were visited. One, of unusual richness, was capable of yielding 920 lbs. of salt daily. Petroleum was found in the township of Myanoung, but apparently not of sufficient quantity to be profitably extracted. Traces of coal were found, but no indication of a seam of any value. A steam mill for husking and cleaning rice was established at Rangoon. It turns out 250 tons of rice daily. A locality for a sanitarium was looked for. The only place found was a plateau on the hills east of Toungoo, in 19° North Latitude. It is damp and inaccessible. A sanitarium on the sea coast would be preferable. Rangoon itself is shown to be a remarkably healthy station for troops. The average admissions per 1000 of strength of Europeans for three years ending March 1860 were 1020. The average of deaths per 1000 was 16.20. Dr. Ranking remarks upon these figures. "These tables exhibit the climate of Rangoon in a most favourable light, not only as compared with stations in India, but even when viewed in relation to the mortuary rates pertaining to British troops in any quarter of the globe. With such a low death rate as has pertained to this station for the last three years, it becomes a question whether any locality within the province will be found so deserving of the name of sanitarium as does the station of Rangoon."

ADMINISTRATION OF COORG.

1860-61.

THE report on the administration of Coorg for 1860-61 is submitted by Captain H. M. Elliott, the Superintendent, on the 18th of June 1861.

The Revenue amounted to Rs. 2,73,120 being an increase of Rs. 8,923-12-4, and the expenditure to Rs. 1,13,647 being an increase of Rs. 6,901-7-11. The surplus was Rs. 1,59,472-15-7, being Rs. 2,000 more than that of last year.

Land Revenue.—The increase on the actual cultivation of land paying revenue was equal to Rs. 8,248-6-6, or Rs. 4,000 more than the increase of 1859-60. Koomery cultivation was strictly prohibited.

Other Revenue.—From Excise a revenue of Rs. 49,640-11-10 was derived, showing an increase of Rs. 13,953-11-10 over the previous year. No revenue was gained from Stamps, none having been received for sale. Abkarry was taken under Government management and realized Rs. 48,616, which was Rs. 14,566 more than the contractors gave. The amount of Income Tax returned was Rs. 1,095, which was only the percentage stopped on Government salaries. The assessment of the district was not completed. The lump and punchayet system would be adopted as the most suitable. It was expected that Rs. 7,000 would be obtained.

Coffee.—The revenue from this source was Rs. 32,103 being an increase of Rs. 4,161. The year was not a favourable one for coffee. Out of 1,29,869½ maunds exported no less than 1,17,223½ maunds were exported by natives, and only 12,645½ by Europeans.

Mohaturpha.—The amount realized was Rs. 11,887 being an increase of Rs. 386. No deduction was made for income tax. The deduction would be provided for in the assessment of the tax. Cardamums yielded Rs. 2,187 more than the previous year.

Miscellaneous.—The uncollected balance at the end of the year amounted to Rs. 75,241, being Rs. 10,537 over the balance of the previous year. The balance on account of arrears was only Rs. 706. Three royal tigers and nineteen cheetas were killed. The population amounted to 1,19,161 as nearly as could be ascertained.

Judicial.—During the official year 1,044 original suits were filed in the different cutcherries; 985 of these were disposed of,

and 102 remained on hand. The value of property sued for was Rs. 50,449, of which Rs. 41,104 was decreed. Twenty-one appeal suits depended on 30th April 1860, and 274 were instituted during the official year. Two cases of poisoning, two highway robberies, and two arsons were brought to trial. The value of property stolen was Rs. 756. Thirty-three Courts of Inquest were held during the 12 months.

REPORT ON INDIAN LEGISLATION

1860-61

ACTS.—The Acts passed during the year were Nos XXI to LIII of 1860 and Nos I to XI of 1861 :—

Act XXI. of 1860 (An Act for the Registration of Literary, Scientific, and Charitable Societies)

Act XXII. of 1860 (An Act to remove certain tracts on the Eastern border of the Chittagong District from the jurisdiction of the tribunals established under the general Regulations and Acts)

Act XXIII. of 1860 (An Act to amend Act XXI. of 1853, to consolidate and amend the law relating to the Abkaree Revenue in the Presidency of Fort William in Bengal).

Act XXIV. of 1860 (An Act for the solemnization of Marriages in India by ordained Ministers of the Church of Scotland).

Act XXV. of 1860 (An Act for the levy of Port dues in the Port of Bassem)

Act XXVI. of 1860 (An Act to amend Act VIII. of 1855, relating to the office and duties of Administrator General).

Act XXVII. of 1860 (An Act for facilitating the collection of debts on successions, and for the security of parties paying debts to the representatives of deceased persons)

Act XXVIII. of 1860 (An Act for the establishment and maintenance of Boundary Marks, and for facilitating the settlement of Boundary Disputes in the Presidency of Fort St. George).

Act XXIX. of 1860 (An Act to continue in force Act XXVIII. of 1857).

Act XXX. of 1860 (An Act to remove the Pergunnahs of Koonch and Culpee in Zillah Jaloun from the operation of the general Regulations).

Act XXXI. of 1860 (An Act relating to the manufacture, importation, and sale of Arms and Ammunition, and for regulating the right to keep and use the same, and to give power of disarming in certain cases).

The following are the chief points provided for by the Act :—

1st.—It prohibits, except under the authority of Government, the manufacture in India of any Cannon, and also the possession of any Cannon, without the permission of Government.

2nd.—It prohibits the manufacture or sale without license of Arms, Percussion Caps, Sulphur, Gunpowder, and other Ammunition. It also prohibits the purchase of Arms, &c., from an unlicensed dealer.

3rd.—It prohibits the importation of Cannon, Arms, Percussion Caps, Sulphur, Saltpetre, Gunpowder, and other Ammunition, except under a license.

4th.—It empowers the Government at any time to seize and detain Sulphur, except Sulphur kept for medicinal purposes.

5th.—It empowers the Government to prohibit the transport from one place to another in India of Military Stores, Arms, Lead, Sulphur, Saltpetre, Gunpowder, and any other Ammunition, and to regulate such transport, if allowed.

6th.—It empowers Magistrates and other Police Officers to disarm any person carrying Arms without a license if deemed advisable for the public peace.

7th.—It empowers a Magistrate to search any house or premises for Arms, &c. whenever he may have reason to believe that it is advisable for the public peace to do so, first recording the grounds of his belief.

8th.—It empowers the Government, whenever it shall appear necessary for the public safety, to order, by notice in the *Gazette*, a Province or District to be disarmed, whereupon it will be unlawful for any person in such Province or District to have in his possession any Arms or Ammunition whatever, without a license and it will be lawful for the Magistrate or other authorized Officer to search any house in which he may believe that any Arms or Ammunition are concealed.

Act XXXII. of 1860 (An Act for imposing Duties on Profits arising from Property, Professions, Trades, and Offices).

This Act imposes Duties of 3 and 1 per cent. on property and profits classed under 4 Schedules. The first Schedule comprises land and houses in India. The second Schedule comprises generally the profits from any kind of property, trade, or profession, received by a person resident in India, or accruing in India. The third Schedule comprises interest and the like payable out of any public revenue in India. The fourth Schedule comprises salaries of any public office in India and pensions received in India.

Act XXXIII. of 1860 (An Act relating to Emigration to the British Colony of Natal).

Act XXXIV. of 1860 (An Act to indemnify officers of Government and other persons in respect of fines and contributions levied, and acts done by them during the late disturbances.)

Act XXXV. of 1860 (An Act relating to the Transportation of Convicts).

Act XXXVI. of 1860 (An Act to consolidate and amend the law relating to Stamp Duties).

Act XXXVII. of 1860 (An Act to repeal Act XVI. of 1859).

Act XXXVIII. of 1860 (An Act to explain Act XXX. of 1858, to provide for the administration of the Estate and for the payment of the debts of the late Nabob of the Carnatic).

Act XXXIX. of 1860 (An Act to amend Act XXXII. of 1860, for imposing Duties on Profits arising from Property, Professions, Trades, and Offices).

Act XL of 1860 (An Act to amend Act XXXVI. of 1860).

Act XLI. of 1860 (An Act relating to the Emigration of Native Laborers to the British Colony of Saint Kitts).

Act XLII. of 1860 (An Act for the Establishment of Courts of Small Causes beyond the local limits of the jurisdiction of the Supreme Courts of Judicature established by Royal Charter).

Act XLIII. of 1860 (An Act to amend Act VIII. of 1859, for simplifying the Procedure of the Courts of Civil Judicature not established by Royal Charter).

Act XLIV. of 1860 (An Act for providing for the exercise of certain powers by the Governor General during his absence from his Council).

Act XLV. of 1860 (The Indian Penal Code).

(Introduced 20th December 1856, and passed 6th October 1860.)

The question of enacting a general Penal Code for India had long been under consideration. In 1835, the preparation of it was entrusted to the Indian Law Commissioners, by whom it was completed and submitted to Government in 1837. In 1851, a revised edition of the Code was prepared by Mr. Bethune. On the 3rd June 1854, the Code prepared by the Commissioners was referred to a Select Committee of the Legislative Council for consideration and revision. On the 7th of the following month, the Committee, in reference to a Despatch from the Court of Directors, made a special report in which they recorded their opinion that the Code, as originally prepared, should form the basis of a system of Penal law for the whole of the British Territories in India. The Code, as revised by the Committee, was introduced into the Council on the 20th December 1856. It was in due course again referred to a Select Committee for further revision after considering the observations and suggestions which might be elicited by the publication of the Code. The Code, as then further revised, was brought up for final consideration, and was at length passed into law on the 6th October 1860. It was provid-

ed that it should take effect from the 1st May 1861 throughout the whole of Her Majesty's Territories in India embraced by the Statute 21 and 22 Vict. c. 106 except the Straits' Settlements, and be applicable alike to the Supreme Courts and to the Mofussil Courts. By providing a uniform system of criminal law throughout India, it will supersede the Mahomedan law; and by defining offences and punishments, it will render unnecessary the employment of Mahomedan law officers in the Mofussil Courts. The copious use of illustrations is a striking peculiarity in the framing of the Code, which is thus at once a Statute book and a collection of decided cases. The illustrations, however, are not intended to supply any omission in or to put a strain on the written law, but merely to be instances of the practical application of the written law to the affairs of mankind.

On the third reading of the Code, its history and principles were reviewed in a speech by Sir Barnes Peacock, the Vice President. Subsequently, by Act VI. of 1861, the time for the Code to take effect was postponed till the 1st January 1862.

Act XLVI. of 1860 (An Act to authorize and regulate the Emigration of Native laborers to the French Colonies).

Act XLVII. of 1860 (An Act for giving to the Universities of Calcutta, Madras, and Bombay the power of conferring Degrees in addition to those mentioned in Acts II., XXII., and XXVII. of 1857).

Act XLVIII. of 1860 (An Act to amend Act XIII. of 1856, for regulating the Police of the Towns of Calcutta, Madras, and Bombay, and the several Stations of the Settlement of Prince of Wales' Island, Singapore and Malacca).

Act XLIX. of 1860 (An Act relating to Vessels carrying Emigrant Passengers to the British Colonies).

Act L. of 1860 (An Act to amend the law relating to Vacations in the Civil Courts within the Presidency of Fort William in Bengal).

Act LI. of 1860 (An Act further to amend Act XXXVI. of 1860).

Act LII. of 1860 (An Act to amend Act XLIII. of 1854, relating to Railways in India).

Act LIII. of 1860 (An Act to amend Act X. of 1859).

Act I. of 1861 (An Act for the improvement of the administration of Justice and despatch of business in the Supreme Court of Judicature in Bombay).

Act II. of 1861 (An Act to amend Act VI. of 1857, for the acquisition of land for public purposes).

Act III. of 1861 (An Act to provide for the collection of duty of Customs on Pepper exported by Sea from the British Port of Cochin).

Act IV. of 1861 (An Act for the levy of Port dues at Calingapatam and Munsoorcottah within the Presidency of Fort St. George).

Act V. of 1861 (An Act for the Regulation of Police).

Act VI. of 1861 (An Act to alter the time from which the Indian Penal Code shall take effect).

This Act postpones the operation of the Indian Penal Code from the 1st May 1861 to the 1st January 1862.

Act VII. of 1861 (An Act to empower the Governor General in Council to increase the rate of duty leviable on Salt manufactured in, or imported into, any part of the Presidency of Bombay).

Act VIII. of 1861 (An Act for the levy of Port dues in the Port of Amherst).

Act IX. of 1861 (An Act to amend the law relating to Minors).

Act X. of 1861 (An Act to repeal certain Regulations and Acts relating to the Procedure of the Courts of Civil Judicature not established by Royal Charter).

Act XI. of 1861 (An Act to amend Act XIV. of 1859, to provide for the limitation of suits).

MISCELLANEOUS BUSINESS.

Mysore Grants.—On the 8th December 1860, a Petition was presented to the Council, which was signed by 885 inhabitants and tax-payers of Calcutta, relating to the finances of India. Before moving that the Petition be printed, Mr. Seonce put certain questions to the Hon'ble the President of the Council of the Governor General on matters connected with the subject of the Petition.

At the following Meeting of the Council, on the 15th December 1860, Sir Barnes Peacock proposed a formal motion in the following terms :—

"That the Government of India be requested to lay before this Council, a copy of the account in which the stipends which have, from time to time, been paid to the descendants of Tippoo Sultan are debited, or such an abstract thereof as will show the total amounts paid and credited in each year, from the year 1799 to the present time.

"Also a copy of any Resolution or Order of Government by which the stipends now payable to such descendants were fixed, and of any correspondence between the Government of India and the late Hon'ble Court of Directors, or the Right Hon'ble the Secretary of State for India, in consequence of which the same was passed.

"And also a copy of any Despatch or Despatches received during the present year from the Right Hon'ble the Secretary of State for India, by which any sum of money has been ordered to be paid or secured to any of the descendants of the said Tippoo Sultan, and of any document or documents showing the grounds on which such order was made,

“ And further, that the said Government of India be requested to inform this Council whether any sums of money, so ordered to be paid to the descendants of Tippoo Sultan, are included in the estimate for the year 1860-61.”

It was contended by the Members of Government and other Members of the Council, that the Council was exceeding its constitutional powers in thus addressing the Executive Government, but the motion was carried on a division.

Subsequently the following Message was received by the Council :—

“ In reply to the Message from the Legislative Council, No. 182, the President in Council, with the concurrence of His Excellency the Governor General, informs the Legislative Council that the interests of the public service forbid his ordering that the papers asked for by the Resolution, which accompanied the Message, should be laid before the Legislative Council, with the exception of the account specified in the first clause of the Resolution, which will be prepared and furnished to the Council as soon as practicable.

“ The other papers specified in the Resolution relate to a correspondence with the Secretary of State for India, which is yet incomplete ; and the President in Council does not therefore feel that he would be justified in transmitting them to the Legislative Council.

“ The request of the Legislative Council will, however, at once be made known to the Secretary of State.

“ The President in Council has the honor to inform the Legislative Council, in reply to the concluding clause of the Resolution, that no payment beyond what has been usual of late years to the family of the late Tippoo Sultan is provided for in any account or estimate of which the results have hitherto been laid before the Legislative Council.”

Prison at the Neilgheries.—On the 9th March 1861, Sir Charles Jackson enquired as to the progress made in erecting a Prison at the Neilgheries, and what accommodation such Prison would afford for European and American Convicts sentenced to Penal Servitude. The Members of the Executive Government declined to answer the questions, as being unconnected with Legislative measures before the Council. Sir Charles Jackson then put his questions in the form of the following motion :—

“ That a Message be forwarded to the Right Hon'ble the Governor General in Council, requesting His Lordship in Council to inform this Council what progress has been made in erecting a Prison at the Neilgheries, and what accommodation such

Prison will afford for European and American Convicts sentenced to Penal Servitude."

After a debate the motion was carried. Subsequently the following Message was received by the Council :—

"The Governor General in Council has the honor to inform the Legislative Council, in reply to the request conveyed in Message No. 190, that the Secretary to Government, in the Home Department, has been directed to furnish the Clerk of the Council with a Memorandum containing the information asked for in the Message."

Finances of India.—On the 27th April 1861, Mr. Laing made his Financial Statement to the Council, embodying the Indian Budget for 1861-62.

Paper Currency.—The Bill "to provide for a Government Paper Currency" which was introduced last year by the late Right Hon'ble Mr. Wilson, was during the present official year reported on by the Select Committee to which it had been referred for consideration, and passed through a Committee of the whole Council. Further proceedings were suspended to allow the Bill as settled, to be transmitted to the Secretary of State for India.

REPORT ON INDIAN ADMINISTRATION—FINANCE.

1860-61

The duty on Malwa Opium, it was resolved, should be fixed at Rs. 600 a chest from 1st September 1860.

Treasury Bills.—Nearly the whole were converted at or above the minimum rates into other stock, according to the notification of 8th May 1860. It was notified that the Treasury Bills issued under the notification of 6th January 1859, at the rate of 3 pie per day for each 100 rupees, would be paid off under the same terms.

Publication of Accounts.—At the request of the mercantile community of Calcutta, the state of the cash balances was published monthly instead of quarterly, an anticipatory estimate, beginning with that from 1861-62, was published, and it was promised to publish quarterly returns of income and expenditure when the new system of audit and account had been introduced. H. M.'s Government was requested to meet the wish that a Com-

parative Statement be published quarterly of balances in the hands of the Home Government of India, distinguishing the funds belonging to the different Railway Companies. And it was agreed, that the aggregate amount of returns to the Income Tax, and of collections under it and the new Stamp Act, be periodically made public.

Savings' Banks.—The substitution of Regimental Savings' Banks for the military branch of the Government Savings' Bank, was deferred till 1st May 1861.

System of Audit and Account and Reduction of Expenditure.—The new financial system was the great fact of the year. Before the commencement of each official year, the Supreme Government will require careful estimates to be framed of the anticipated income and the proposed expenditure of the Empire for the coming year. And after considering the various objects to be accomplished in relation to the means and resources for such accomplishment, after comparing the past with the proposed expenditure, after weighing the recommendations of the several Executive Governments and the Heads of Departments, the Supreme Government will allot and appropriate to each branch of the service and to the several detailed heads within each branch, specified sums. The several Executive Governments and the Departments will be charged with the due application of the sums assigned by the above Act of appropriation, which sums must on no account be exceeded. But if unforeseen emergency shall necessitate extraordinary expenditure, the Executive Government or the Local Authority must represent the case to the Supreme Government, without whose sanction no additional expenditure must take place, unless under circumstances of such emergency that application for prior sanction is not possible. The Military Finance Commission, subsequently constituted as the Military Finance Department, was appointed on the 29th June 1859 "to sift out the military accounts with a view to the introduction of economical reforms." It was ordered that the whole of the accounts of the various Departments of the Army, after examination at the several Presidencies, should be transmitted to the Military Finance Commission, and that the Commission should transmit the aggregates to the Audit Board for ultimate and appropriation audit. A Budget and Audit Committee was appointed on 11th May 1860 to report on the manner in which the specific sum sanctioned in the Budget should be placed at the credit of the various expending Departments; the mode in which such expenditure should be accounted for to the local Accountants; the mode in which the local Accountants should account to the Audit Department in Calcutta the manner

in which the audit should be constituted, and the rules by which it should be guided in the execution of its functions. This was followed by the appointment, on the 6th July 1860, of the "Civil Finance Commission" for the purpose of investigating all Civil charges excepting the charges of Covenanted and Commissioned Officers, the Civil and Military Police and Public Works, with a view to the suggestion of any reductions that could be properly made. On the recommendation of the Budget Committee the Marine Department was reduced in size; the appointment and the Office Establishment of the Superintendent of Marine are abolished, and that part of his duties necessary to be retained has been transferred to the newly created office of "Naval Secretary and Controller of Marine Affairs." The Marine accounts are to be submitted to the Military Finance Department. As regards Post Office and Electric Telegraph accounts, it was determined to allow the Director General of each of those two Departments to have under him a Compiler of Accounts, who shall be distinctly recognized as Departmental Examiner and Sub-Auditor, responsible for not permitting unauthorized expenditure. The Compilers are to transmit their accounts in extenso with vouchers to an independent Examiner acting under the Imperial Audit Board. After the Committee had drawn up all the details of the new system, Government appointed the Imperial Audit Board, consisting of the Auditor General for India and the Chief of the Military Finance Department. Both these functionaries are to act together in all matters of general organization, policy and economy as effecting Estimates, Budget, Audit and Accounts, and are to determine together any important questions that may arise in connection with the final appropriation audit and other arrangements of a general nature. In all other respects they are, as heads of the Civil and Military Finance Departments, to exercise independent jurisdiction over their respective divisions of the service.

Government Paper Currency.—Mr. Wilson's successor, Mr. Laing, objected to the principle of his Currency Bill which had been approved of and read a first time. He was supported by the Secretary of State for India. The original Bill was accordingly amended by the introduction of a clause declaring that all issues of Notes shall be made against actual coin or bullion, with the exception of an amount, in no case to exceed four crores of Rupees, which may be issued against securities. This fundamental change in the principle of the issue of Notes, made several changes desirable in the machinery of the Bill. Foremost among these was the alteration of the arrangement for the issue and payment of Notes. The new principle of issue adopted being one

which requires no attempt at self-regulating adjustment by constant sales and purchases of securities, the necessity for a costly and complicated machinery of semi-independent Commissioners of Issue, according to Mr. Wilson's plan, no longer existed. It appeared to Mr. Laing that the best Agency for issuing and paying the Notes would generally be that of the existing Banks, provided they would undertake the business on reasonable terms and give proper security. Mr. Laing's amendment had likewise for its object the raising of the lowest denomination of the new Notes from 5 to 10 Rupees. The Bill was passed 13th July as Act XIX. of 1861.

On 11th February 1861, formal notice was served on the Banks of Bengal, Madras and Bombay, to the effect that their powers and authorities would, from and after the expiration of twelve calendar months from the receipt of the notice, be modified by withdrawal from them of the privilege of issuing Notes. After much discussion an arrangement was made with the Directors of the Bank of Bengal, constituting it Agent for the Calcutta Circle of Issue for five years, depositing with it all the money in the General Treasury, and providing that the Bank shall transact all such business for the Government as is usually transacted by Bankers for their customers.

Calcutta Mint and Assay Office.—The Mint was steadily at work, the Stamping Department having been kept on extra half time during 122 days out of the 275 working days of the year. The quantity of bullion received into the Mint during the last year, and the three preceding years, was as follows :—

Years.	GOLD.		SILVER.	
	Govt. Assay.	Individual's value.	Govt. Assay.	Individual's value.
		Rupees.		Rupees.
1857-58	2,263	4,86,577	88,37,245	6,05,49,693
1858-59	408	11,88,668	5,85,599	3,45,40,585
1859-60	3,109	9,61,124	4,05,51,240	2,66,89,869
1860-61	10	4,89,890	11,04,219	1,84,97,595

The total value of Government and Merchants' silver bullion was Rupees 1,96,01,814, being less than one-third of the amount received in the previous year.

The total number of pieces coined during the year of all descriptions was 10,87,54,043, in value Rupees 2,88,01,622-14-8½, which is less by 1,54,09,722 in pieces, and Rs. 3,32,04,151-0-2

in value than the coinage of 1859-60. This decrease is owing to the small quantity of silver bullion having been imported during the year, which occasionally interrupted the silver coinage. But the Mint was at such times fully occupied in coining copper.

The number of small silver coins struck during the year was 87,57,676, being 96,04,247 less than that coined in 1859-60. This deficiency is attributable to the demand for them made by the Sub-Treasurer having been limited to the extent coined.

The copper coinage numbered 7,50,56,096 pieces, being 2,59,37,779 more than was coined in 1859-60. The remittance in Gold on account of Government was only Rs. 10-5. Merchants' Gold was assayed to the value of Rs. 4,89,890-10. The value of gold coined was Rs. 6,50,385. The quantity of silver received and coined during the last four years is as follows :—

YEAR.	Remittance on Government ac- count	Merchants'.	Value Standard Minting.	Value Coined.
	Rs. As. P.	Rs. As. P.	Rs. As. P.	Rs. As. P.
1857-58	88,37,244 8 2	0,05,19,093 2 0	12,19,00,790 0 0	7,30,39,307 0 0
1858-59	5,85,099 7 3	3,44,49,281 11 1	6,37,05,040 0 0	3,81,31,176 4 0
1859-60	4,05,51,259 12 7	2,65,89,508 11 8	10,71,59,143 0 0	6,03,01,157 2 0
1860-61	11,01,219 8 6	1,84,97,595 0 11	6,14,23,059 15 30	2,68,86,155 10 0
	5,10,78,903 4 6	14,02,77,438 12 11	34,01,66,034 9 1	19,91,12,396 0 0

The Bank of Bengal declared a dividend of 6-8 per cent. free of Income-tax during the half-year ending December 31, 1860.

HUMAN SACRIFICE AND FEMALE INFANTICIDE IN THE HILL TRACTS OF ORISSA.

1860-61.

On 25th May 1861, Captain A. C. McNeill, Governor General's Agent for the Hill Tracts of Orissa, sends in a Report on this subject to the Government of India, which appears as one of the administration Reports for 1860-61.

The Agent's camp started for the hills towards the end of November. At Sooradah, it was found all the chief Khonds of the

infanticidal tribes had not remained true to their pledges, though many more female children are reared than formerly. No sacrifices had occurred, but several cases of female infanticide in the Guddapoor district of Chinna Kimedý. The Khonds implicated were sentenced to the lenient punishment of three months' labor in irons, as they made their submission only the previous year. Seventeen new Meriahs were rescued from the Khond tracts of Jeypore. The Khonds of Ryabejee openly acknowledged that the only reason which kept them from sacrificing was the yearly repeated visits of the Agency, and that its discontinuance would be the signal for a return to the old state of affairs. The sacrificing Khonds of the hill tracts of Bundhasir of Karoonde are a much more civilized race than their neighbours of Chinna Kimedý,—they all pay rent for their lands, and nearly all are able to converse in Ooriah. They also professed obedience to the orders of Government, but stated in the most unequivocal manner that compulsion alone caused them to refrain from sacrifice. For the last three seasons the rains were scanty in the Karoonde and Jeypore Khond Tracts, and the crops and cattle suffered much in consequence. The Khonds, dissatisfied and uneasy in their minds at the relinquishment of the Meriah, were only too anxious to revert to their long cherished rite—and with this object in view they appealed to the Paut Rajah of Toomool for permission to sacrifice, and asked him for a Meriah. This he declined to give. The difficulty was got over by a Khond, named "Bottýbis Magee," stating that he would hand over for sacrifice a "Toorie" who, though not purchased as a Meriah, was an Agrarian slave purchased for five Rupees. The offer having been accepted, the intended victim, an elderly woman, was removed to the village of Puckregoodah, and there heavily ironed. The Paut Rajah unsuccessfully attempted to rescue the Meriah. Captain McNeill, hearing of the intended sacrifice, despatched a guard of 58 Sebundies to Toomool. It is a plateau, rising abruptly from the plains of Karoonde to a height of 4,000 feet, as measured by two Aneroid Barometers which read 26 250. This plateau, including Kassipoor, is about 50 miles in length, and its extreme breadth is from 15 to 20 miles. In its general aspect it is an undulating country well watered. The Khonds attempted resistance but were defeated. Eighteen Meriahs were surrendered to Captain McNeill's Assistant in Chinna Kimedý. The school for their benefit at Ooposobhangs in the low country was attended by 45 children, either rescued Meriahs or the children of Meriahs rescued in former years, and established as Ryots—of this number six are studying Ooriah and Teloogoo, and the remainder Ooriah only. The Report concludes with statistics. In the 59 villages and

1,483 houses of Koradah Talook and Chinna Kimedy Talook, there were 2,907 males and 2,159 females. Of children under 6 years of age there were 661 males and 672 females. In the 134 villages and 2,848 houses of Sooradah there were 5,785 males and 3,034 females. Of children under 6 years of age there were 1,326 males and 933 females. In Goomsur Chinna Kimedy, Kalahundy and Jeypore there were of Meriahs 26 males and 27 females; of these 46 were restored to owners in adoption and 6 taken to the low country.

REPORT ON INDIAN ADMINISTRATION—

PUBLIC WORKS.

1860-61.

FINANCIAL.—The whole estimated expenditure chargeable to British funds was £3,917,184, of which 187,000*l.* were Electric Telegraph charges, 162,389*l.* for railway control and purchase of land and 223,900*l.* chargeable to local funds. The estimated foreign expenditure was 107,519*l.* in Mysore and the Hyderabad districts. The total expenditure was £4,024,703.

	New Works.	Percentage of total outlay.	Repairs.	Percentage of total outlay.	Total.	Percentage of total outlay.
	£	£	£	£	£	£
Military Buildings	643,854	18	130,575	4	774,429	22
Civil	257,506	8	87,972	3	345,478	11
Agricultural Works	233,661	7	352,660	10	586,321	17
Communications	319,627	9	321,279	9	640,906	18
Miscellaneous Public Works	91,693	3	24,001	1	115,694	4
	1,546,241	45	916,487	27	2,462,728	72
Reserved for unforeseen requirements and petty works					307,466	9
Establishment Charges					681,220	19
Grand Total					3,451,414	100

Of this total £3,343,895 is British expenditure, the expenditure on new works is 54 per cent. of the whole; 27 per cent. is for repairs, and 19 per cent. for supervising Establishments, consisting of Engineers and their subordinates, with the Offices for Correspondence, Drawing, Estimating, Accounts and Audit. The expenditure on new Military Buildings is 19 per cent. of the whole, and forms a charge of £1-16-10 per cent. on the whole revenue of the country. It ranges from a minimum of 8s. 4d. per cent. in Bengal to a maximum of 28½ per cent. in the Straits. In Madras it is only 17s. 10½d., in Pegu £6-4, and in Oudh £16-5. The outlay on works of public improvement bears exactly the same ratio to the whole revenue of the country as Military works. Speaking roughly, it may be said that Military works, works of public improvements, and Establishments, absorb each one-fifth of the whole expenditure, repairs one-fourth, reserved for unforeseen contingencies one-tenth, civil buildings one-twentieth. The whole outlay of every kind in the Public Works Department is £3-11-6 per square mile, and about 6 pence a head of the population, and is a charge on the Revenues of 9½ per cent.

The allotments to the several Governments were—

			Per cent. of its Revenue.	Per square mile.	Per Head.
				£ s. d.	£ s. d.
To Madras	...	62 lakhs.	10	4 10 7	0 0 6
" Bombay	...	50½ "	8.2	3 11 11	0 0 10
" Bengal	...	51½ "	4.9	2 0 8	0 0 3
" N. W. P.	...	51 "	9.2	5 13 0	0 0 5
" Punjab	...	51 "	16	5 6 8	0 0 8
" Oudh...	...	25 "	20.9	10 0 0	0 0 9
" Nagpoor	...	6 "	14.7	0 15 8	0 0 3
" Pegu...	...	12½ "	28	3 18 7	0 2 10
" T. and M. Provinces	...	2½ "	15	0 11 10	0 1 5
" Straits	...	6½ "	51.5	43 3 1	0 6 9
" Hyderabad (British Charges)	...	5½ "			
" Coorg...	...	¼ "	7.1	0 17 0	0 0 3

Accounts.—In communication with the late Mr. Wilson, the arrangements for a distinct Department for the audit and control of Public Works accounts mentioned in last Report, was thus finally determined. That the Auditors and Controllers of Public Works accounts should be established under all Local

Governments, but under the name of Controllers and Examiners, and that they should be under the orders of the Chief Engineers instead of being independent Auditors. That the accounts of these Examiners should follow the same course as all other Civil accounts, and should undergo "concurrent audit" by the Civil Auditor of the Local Government. They would arrive in due course under the general audit of the Audit Department of the Government of India. But to preserve uniformity of system, and to afford the Public Works Office of the Government of India a proper control over the financial operations of the Department, that an Inspector of Public Works accounts should be appointed, who would be the Financial Officer of the Public Works Department of the Supreme Government, and to whom the other Local Civil Auditors and the Auditor General might refer for an opinion in all matters in which technical questions might arise in the audit of the Examiners' accounts which these Officers may need assistance to dispose of. The Inspector would, as the name imports, also inspect the Local Offices; he would receive returns from them and keep up the Financial records of the Public Works Office of the Government of India. Besides these a very difficult part of his duties would be to establish a system for the audit and examination of Railway accounts.

PUBLIC WORKS—*Military*.—The question of the provision of quarters for married soldiers was raised. For cheapness sake, the Madras and Bombay Governments recommended the "Patchery" system, by which convenient and healthy accommodation has been provided for the married men of Corps at a comparatively trifling cost, under certain Regimental arrangements. The other Local Governments were requested to supply precise information as to the existing methods of accommodating married soldiers in different places, and as to the number of married soldiers who have still to be provided with quarters, looking (first) to the actually existing number, and (secondly) to the allowed maximum. In the case of *Bangalore* it was decided that a series of detached earth-works, occupying well selected points round the ground and buildings to be defended, so placed as to aid in mutual defence, and as few in number as was consistent with this object, would form the best and cheapest defence of the position. It was decided that *Poona*, the site not only of a very large European station and of a dangerous native city, but the immediate base of all operations in the Deccan, should have a fortified position of rather a high class; general sanction was therefore given to the erection of the fortified post on the Sungum site. Extensive clearances and improvements in *Delhi* were carried out and the Punjab Government's recommendations for its de-

fence approved. The proposals for the removal of the Arsenal Establishments from Delhi, and their concentration at *Agra*, rendered it necessary to take measures for making the Fort at that place more secure. The recommendations of the Committee appointed to report on the subject were not approved, and the following orders were issued. The cardinal object of reducing to the smallest dimensions all strong places, the retention of which is a necessity so long as we retain India, had not been sufficiently kept in view by the Committee. The out-works proposed by the Committee were considered objectionable, as rendering it necessary to maintain a larger garrison, and being in themselves a source of weakness rather than of strength. The irregular ground outside of the Fort to be sloped off, so as to prevent a succession of glacis, and expose the whole extent as much as possible to the view and fire of the Fort. A glacis and covered way to be formed, the counter-scarp being strengthened by counter forts, where necessary to make it support the additional weight of earth. The Jumma Musjid to be neither destroyed nor occupied, but mined, so as to admit of its being blown up in case of necessity. Embrasures not concentrated in batteries, but scattered, to be pierced in the walls, so as to give a fire at a lower level than from the top of the walls. The Public Works and Civil Officer to be called upon to submit estimates of the cost of removing Jotee Persad's house, situated on the northern side of the Fort, and for effecting a clearance round the Jumma Musjid.

Ecclesiastical.—A London Committee proposed to erect a Church for native Christians in Cawnpore, as a memorial of the Mutiny. A meeting in India approved rather of the project of building a Church of suitable ecclesiastical character, in which the relatives and friends of those who fell might be able to place tablets or painted windows, and in which a place might be set apart for the inscription of the names of all who lost their lives at Cawnpore in 1857. Such an edifice, it was thought, would be most suitably erected in the immediate vicinity of Sir Hugh Wheeler's entrenchment. The Governor General approved and Rs. 60,000 were collected, including a grant by the Society for the Propagation of the Gospel, a sum which the state doubled. The commencement of the work was authorised.

Industrial.—A proposal was made by Mr. Hayman, as the projector of a Company, to work the Omrait or Chindwarra Coal in Nagpore. The field was reported on. Mr. Oldham reported on the Kumaon Iron Works to the effect that the management had been neither judicious nor successful. Government accordingly accepted an offer made by a Company, represented by Lieuten-

ant Colonel Drummond, to take over the works at a valuation. The Company is a real and substantial one. Major R. H. Keatinge, of the Bombay Artillery, Political Agent and Superintendent of Nimar, had long devoted his attention to the manufacture of iron, which abounds in the vicinity of Burwai on the Nerbudda, and is manufactured by the natives in a very wasteful manner. At his suggestion a small Steam Engine and Rolling Mill were ordered from England, for the purpose of rolling into useful shapes the balls of iron produced by the natives. This was erected in the Mundlaisir Jail Workshops. After visiting the iron works of Sweden and North Germany, Major Keatinge recommended the erection of a small Blast Furnace at Burwai in Nimar, which he estimated to cost £2,700, including a Steam Hammer and a Rolling Mill. His suggestion was adopted, and a young Swedish gentleman, Mr. Nils Mitander, trained in the Government School of Mines at Falen, arrived as manager of the Works.

Marine.—The construction of the Alguada Lighthouse proceeded vigorously.

Agricultural and Irrigation.—There was an increasing demand for timber in the Public Works Department. Accordingly Superintendents of Forests were appointed in Oudh and the Saugor and Nerbudda Territories, and an Officer was deputed to explore the Government forest tracts of Nagpoor, whilst the Commissioner of that Province and also the Resident at Hyderabad were invited to submit proposals for placing under due supervision the forests within their authority. A Superintendency of the Forests in Kumaon, Gurhwal, and Dehra Dhoon, is already in operation. To secure a uniform system of conservancy, all Forest business is to be dealt with in the P. W. Department. The excavation of the Bolundshuhur Branch of the Ganges Canal was undertaken to give employment to the furnished population of the Muttra District. The cost of this branch of the Canal is roughly estimated at three lakhs, and the work is designed for the irrigation of the Doab lying between the River Jumna and the Keroon Nuddee. Captain Turnbull makes an approximate calculation based on the results of the Eastern Jumna Canal for the preceding year, that the Ganges Canal brought into the market $4\frac{1}{2}$ millions of maunds of grain, irrespective of sugar and cotton, besides greatly facilitating the transport of grain from the lower provinces. The Madras Government began the construction of a dam across the Punnyar River and certain works connected with it, for irrigating a portion of the South Arcot District. Its object is to afford irrigation to 78 villages on the south side of the river, and it is expected that the increased revenue obtained thereby will be Rs. 6,125, or ten per

cent. on the outlay, Rs 61,000. Government authorised the excavation of the Doodiah Channel, about a mile in length, 100 feet in width, and 5 feet in depth, to increase the supply of water to the Ganges Canal at the head works. The Superintendent General reports that the total Canal revenues for the year were as follows :—

		Rs. A. P.			Rs. A. P.		
North-Western Provinces.	{ Ganges Canal	...	3,05,096	13	11		
	{ Eastern Jumna Canal	...	2,59,272	11	8		
	{ Dhoon Canals	...	12,308	0	3		
	{ Rohilkund Canals	...	30,265	0	4		
	{ Agra Irrigation Works	...	11,669	4	2		
						6,18,611	14 4
Punjab	{ Western Jumna Canals	...	3,66,334	5	10		
	{ Nujafpur Jheel Works	...	16,240	1	10		
						3,82,574	7 8
Total		...	...	...		10,01,186	6 0

or in round numbers say ten lakhs of Rupees.

"If therefore the direct revenue to Government on the Eastern Jumna Canal of Rs. 2,60,000 produced an actual benefit to the community in the neighbourhood of that Canal, amounting to 60 lakhs of Rupees, (and this benefit is, I believe, rather under than over-estimated,) it will be but reasonable to assume that the aggregate benefit derived by the agricultural population bordering on the whole of the Canals before enumerated, will amount to a sum not less than 230 lakhs of Rupees for the past year.

"Thus then it will be seen that the agricultural interests at stake in the well-being of the Irrigation Department are by no means small; that though the Canals may not apparently return a large direct interest for the outlay upon them, yet their indirect value to the Government in the prosperity of the country and the people is considerable. While these advantages, however, are borne in mind, the direct returns in the form of interest are not to be despised."

The annexed Statement shows in a brief form the total outlay on capital and detail of charges and income to 30th April 1860 :—

	Capital.		Interest at 5 per cent. Maintenance and Repairs.				Revenue.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	As. P.
Ganges Canal	1,82,63,74	13 0	39,86,492	4 4	19,26,219	12 10	7,15,801	11 9
Eastern Jumna Canal ...	14,02,804	3 2	11,07,123	0 4	22,78,617	1 6	31,55,205	6 4
Dhoon Canals	4,13,804	12 8	1,40,178	3 1	1,59,732	8 1	1,68,896	14 0
Rohilkund Canals	1,72,405	12 10	22,009	10 2	1,11,159	2 8	1,88,548	12 2
Agra Irrigation Works...	85,905	12 4	18,794	13 6	24,401	0 4	56,512	9 11
Total	2,03,38,852	6 0	52,74,397	15 5	45,00,159	9 5	42,84,965	6 2
Western Jumna Canals ...	16,49,659	15 10	4,72,723	0 3	42,59,140	13 6	82,49,967	9 3
Nujufghur Jheel Works ...	1,36,954	2 3	9,135	14 8	70,113	14 4	2,50,000	13 5
Total	2,21,25,466	8 1	57,56,466	14 4	88,29,414	7 3	1,27,84,933	12 10

The following statement of income since the Ganges Canal began to yield revenue shews that its growth is steady if slow:—

	Rs.		A. P.	
Income for 1855-56	48,600	5 2
" " 1856-57	1,09,760	0 10
" " 1857-58	88,790	0 0
" " 1858-59	1,63,554	7 10
" " 1859-60	3,03,098	13 11

Communications.—The Oolabaria canal was planned to provide a safer and a shorter water communication for the boats connected with the trade of the Damooda River, and the several lines of water communication in the Midnapoor District, when passing between Calcutta and the centres of trade in Burdwan and Mirzapoor. The canal would connect two points on the Hooghly and the Damooda Rivers, situated respectively 19 and 15½ miles distant from the junction of the two streams, and would thus afford an actual saving in distance of 27 miles, besides enabling boats to escape a somewhat dangerous river navigation. At first, acting on Lord Stanley's recommendations, it was proposed to carry out the work, which was estimated to cost a lakh of rupees, by local loans. It was, however, subsequently determined to carry on the works out of the surplus navigation tolls at the disposal of the Local Government. On the subject of maintaining trunk roads which run more or less parallel to railways, it was determined that trunk roads of manifest Military importance should be preserved from deterioration, and where unfinished should be completed with all convenient speed, but that they should not be constructed in the expensive style originally intended. For, to apply very large sums to the construction of roads on lines parallel and contiguous to those selected for Railways, would be as unwise as to abandon existing roads. The commercial and social utility of such roads need not be disputed, and it may be admitted too that they might on occasion prove of great Military value; still the necessity for them is not so obvious or so pressing as to justify a large outlay upon them in times when in every part of India public works, even more intimately connected with the advancement and material prosperity of the people, are left unexecuted for want of funds. It was also laid down as a general rule, that whatever new roads are made in the immediate neighbourhood of Railways, they ought to be such as will serve as feeders to them, without which no Railway of considerable length can fully answer its purpose. Tolls were abolished on Imperial lines of road. Of the Indus tunnel at Attock 388 feet on both sides were completed being 1,113 still unfinished. Large sums were sanctioned for the Lahore and Peshawur Road, and the following for roads in the cotton districts of Nagpore :—

100 miles	1st class road, @ Rs. 7,000 per mile	...	7 lakhs.
1,000	" 2nd " " " 3,750	" ...	37½ "
300	" 3rd " " " 1,000	" ...	3 "
1,000	" 4th " " " 250	" ...	2½ "
Total		...	50 lakhs.

134½ miles of this were sanctioned an expenditure of Rs. 28,700 for the construction of a road from Russelkondah in Ganjam to Koinjoro, a small village near the extreme N. E. Madras frontier. This road was completed as far as the village of Sankarabol, about 4 miles north of Koinjoro. The work is to be continued to Sonapore. The scheme of a port at Dalhousie was finally abandoned, the place not being sheltered from the gales.

Railways.—The following rules were passed regarding Sunday labour. Work of every kind to be performed by contract or otherwise on Railways, and other works under construction by Companies working under Government guarantee, will cease on Sundays, except in cases of absolute necessity, certified to the satisfaction of the Local Governments; in cases in which the work is to be carried on at a distance from any European station, and does not require daily supervision by Christian overseers; in cases of existing contracts, under which it has heretofore been carried on in the belief that the clause of the contract prohibiting it would not be enforced. In entering into new contracts it is to be distinctly explained that the above rule will be strictly acted up to. Full details will be found under the head of Railways and in the Reports of the various local Governments.

THE ADMINISTRATION OF MADRAS.

1860-61.

IN consequence of the recall of the Governor of Madras, Sir C. Trevelyan; the Senior Member of Council, the Hon'ble W. A. Morehead, acted as Governor from 8th June to 5th July 1860, when he was relieved by the Hon'ble Sir H. Ward, previously Governor of Ceylon. Sir Henry Ward died suddenly of cholera on the 2nd of August, and the Government then again devolved upon the Hon'ble W. A. Morehead, who administered it until the arrival of the present Governor, Sir W. T. Denison, K. C. B. Sir William assumed charge on the 18th February 1861. Sir H. Davison, Chief Justice, who died at Ootacamund on 4th November 1860, was succeeded by Sir Colley Harman Scotland on 23rd May 1861. Bishop Dealtry died at Madras on 5th March. Sir Patrick Grant resigned the command of the Madras Army on 27th February 1861, and Sir James Hope Grant was appointed to succeed him.

JUDICIAL.—Civil Justice.—The total number of suits instituted in the several Courts of Original Jurisdiction during 1860 was 1,37,834. Of these, 310 were entertained by Civil Judges, 680 by Subordinate Judges, 230 by Principal Sudder Amins, 2,015 by Sudder Amins, and 88,793 by District Moonsiffs. This shews a decrease of 25,435 in the number of suits filed. The number of additional decisions was 10,376. Of the whole number of suits pending at the close of 1859 and instituted during 1860, 27 per cent. were decided after full investigation of the facts; 28 per cent. were privately adjusted; 14 per cent. were disposed of in other ways, and the remaining 30 per cent. were pending at the end of the year. Of the suits determined 85 per cent. were decided in favor of the Plaintiffs, and 15 per cent. in favor of the Defendants. Of the total number of original suits disposed of, 2 per cent. were tried by Civil and Subordinate Judges, and 67 per cent. by Principal Sudder Amins, Moofly Sudder Amins and District Moonsiffs. Of the 68,855 original suits pending at the close of 1860, 16,996 or 4 per cent. had been on the files for more than a twelvemonth, and 16,075 or 4½ per cent. for more than six months. Nine-tenths of the entire number of suits instituted, were for recovery of debts, wages, &c., while only 478 were connected with caste, religion, &c. The total value of the original suits pending at the close of 1860 was Rupees 148,15,664-5-5, being Rupees 66,42,557-7-5 less than at the close of the preceding year. There were 18,466 appeals, of which 11,603 were disposed of: viz., 2,198 or 12 per cent. were decreed on the merits for Appellants; 3,279 or 17 per cent. for Respondents; 243 or 1 per cent. were remanded; 531 or 3 per cent. were dismissed for default, and 5,352 or 29 per cent. were otherwise disposed of, the average duration of Appeals on the files being 1 year, 6 months and 11 days. Out of 58,367 applications for execution of Decrees pending at the close of 1859, and received during 1860, 53,862 or 92 per cent. were disposed of, leaving only 4,505 unexecuted at the close of the year. The Sudder disposed of 35 regular suits and 198 special suits under the old law, being 4 of the latter depending at the end of 1860. Under Act VIII. of 1859 it disposed of 4 regular and 140 special, being 21 and 588 respectively depending.

Criminal Justice.—There were charged with petty offences 2,29,867 or 684 less than in the preceding year. Of these, 85,857 or 58 per cent. were acquitted and released; 79,890 or 35 per cent. were discharged on Razecnamah; and 62,363 or 42 per cent. were convicted and punished—the number dealt with the Village Magistracy by being 17,727 or 9 per cent.; by the Taluq Magistracy,

2,02,411 or 87 per cent. ; and by the District Magistracy, 9,065 or 4 per cent. The ratio of persons charged, to population was 1 in 97, and of those convicted 1 in 360. The total number of crimes and misdemeanors reported to have been committed during the year amounted to 16,464, in which 61,366 persons were concerned, showing a decrease of 970 cases and an increase of 6,213 persons, as compared with the previous year. Of the above 16,464 offences, 972 or 6 per cent. were against the person ; 12,131 or 74 per cent. against property ; and 3,361 or 20 per cent. of various other offences. Including those under trial at the close of the previous year, there were 9,817 cases of crimes and misdemeanors with 24,730 persons brought before the Courts. Of these, 15,401 persons or 62 per cent. were released by the Police and Magistracy ; 3,903 or 43 per cent. were convicted and punished ; 342 or 4 per cent. were held to security ; and 4,727 or 53 per cent. were acquitted. Of the 8,972 persons brought under trial, 15 per cent. were tried by the Magistracy ; 55 per cent. by the Subordinate, Principal Sudder Amins', and Sudder Amins', Courts ; 27 per cent. by the Session Courts ; and 3 per cent. by the Sudder Court. The ratio of cases brought to trial, to population was 1 in 2,283, of persons charged 1 in 908, and of those convicted and punished 1 in 5,766.

Police.—There were 15 districts in progress of occupation and the arrangements were completed in seven districts. Of 18,000 men there had been raised 16,253. A country comprising 82,001 square miles and containing a population of 14½ millions of inhabitants had been brought under regular watch and patrol. The Constabulary was at work in 47 large Towns and Cantonments ; guarded 24 District Jails and 130 Treasuries ; had relieved all Military Guards and minor Detachments in the various Districts, and had undertaken all Treasury escort duty. A grade of Deputy Inspectors General was introduced for the five ranges known as Northern Circar, Ceded District, Western, Southern and Central. Crime was abundant during the year in consequence of distress, but the criminal returns would have been much heavier save for the presence of the new police. In the Presidency town there were 22,211 cases before the Magistrates against 23,123 in 1859, or a decrease of 912.

Jails.—The new prison for Europeans at Ootacamund was to be completed in August 1861. The deaths during the year in all the Jails amounted to 400, on an average daily strength of 5,955 prisoners. Of this number 1402 occurred within, and 2578 after the first year of imprisonment.

REVENUE.—The season was in some places unfavourable, in others disastrous from a failure of the S. W. and N. E. Monsoon.

Items.	1856-57.		1857-58.		1858-59.		1859-60.		1860-61.		Percent- age.
	Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Land Revenue ...	3,75,09,713		3,61,81,771		4,15,20,294		4,08,14,800		3,97,13,056		70.82
<i>Sundry sources.</i>											
Abkarry, or tax on spi- rituous liquors ...	23,12,853		27,37,858		28,33,591		29,28,240		30,69,480		5.47
Salt ...	54,04,795		56,92,310		60,24,313		64,58,763		70,57,174		12.59
Sea Customs ...	13,09,646		12,80,291		13,91,409		23,55,639		27,00,862		4.82
Moturpha, or tax on professions, &c. ...	10,82,974		10,51,534		11,03,253		10,94,734		10,08,015		1.80
Stamp Revenue ...	7,07,716		7,50,737		8,07,197		8,58,008		13,87,738		2.47
Frontier Customs ...	1,95,319		1,93,806		1,96,062		2,39,637		2,87,362		.51
Total Sundry sources...	1,10,81,416		1,17,06,536		1,23,55,807		1,39,35,021		1,55,10,631		27.66
Extra Revenue ...	2,09,805		2,45,410		2,20,150		2,87,993		8,52,324		1.52
Grand Total ...	4,88,00,934		4,81,33,717		5,40,96,251		5,50,37,814		5,60,76,011		100
£ ...	4,880,093		4,813,371		5,409,625		5,503,781		5,607,601		.....

Between 1856-57 and 1860-61 the revenue has steadily increased from £4,880,093 to £5,607,601, and the increase in the last year of the series over that which preceded it amounts to £103,820.

Land.—There was a net increase of acres 343,612 in the area of land occupied for cultivation over that of the previous year, the total being acres 14,017,583 against acres 13,673,971. This was mainly in dry cultivation. The decrease in the revenue necessarily resulted in part from the large remissions which were inevitable in so disastrous a season, but it was also largely due to the less amount of arrears outstanding at the beginning of the year, and consequently collected within it.

Alkarry.—Except in the Presidency Town and in a few Military Stations, the revenue derived from the tax on the manufacture and sale of spirituous liquors is farmed out periodically for terms of five years, and consequently varies but little, save on the occasion of the renewal of a lease. There was a small increase in the year under review of Rupees 1,41,210 or £14,124.

Salt.—The price was raised from Rs. 1-2 to 1-6 per maund, or from 328 to 401 of a penny per lb., but only in the last month. There was an increase of £59,841. From Madras there were conveyed by Rail into the interior 5,36,000 Indian maunds or 19,690 tons, against Indian maunds 382,000 or tons 14,033 in the previous year.

Sea Customs.—There was an increase of Rupees 3,45,223 or £34,522 in 1860-61 over the preceding year; while at the same time the declared value of the Foreign import and export trade, exclusive of Bullion and Specie, rose from Rupees 6,86,89,833 or £68,68,983 to Rupees 7,62,54,150 or £76,25,415. There was a decrease at Madras but an increase at Tanjore of 2½ lakhs, owing to the stores required for the Southern of India railway.

Annexed is an analysis of the Foreign import trade for the whole Presidency in the past year. The value of "Piece goods," the largest item in the list, is in the proportion of 6½ pence to each inhabitant of the country, calculating from the census taken in 1856-57.

Articles.	Value.	Articles.	Value.
	Rs.		Rs.
Millinery and wearing apparel ...	8,24,720	Malt liquors ...	4,81,372
Gold and silver lace and thread ...	5,51,074	Metals ...	30,29,931
Books and stationery ...	4,66,168	Naval stores ...	2,46,219
Twist and yarn ...	38,84,154	Oilman's stores ...	1,81,178
Piece goods, dyed ...	10,29,214	Porcelain and Earthenware ...	1,53,019
Do. printed ...	7,00,739	Pipe staves and Casks ...	1,41,640
Do. plain ...	41,08,469	Provisions ...	1,59,100
Drugs ...	3,87,003	Railway stores ...	26,56,226
Dyes ...	1,36,653	Seeds ...	1,72,799
Detachment, boiled ...	1,90,166	Silk, raw ...	1,03,279
Do. raw ...	2,92,451	Silk piece goods ...	2,04,728
Glassware ...	1,36,552	Spices ...	2,76,028
Paddy ...	5,49,346	Spirits ...	2,46,048
Rice ...	7,48,637	Tea ...	2,64,074
Wheat ...	2,59,689	Timber and planks ...	6,50,482
Grain of sorts ...	1,17,760	Wines ...	5,70,155
Gunnies and gunny bags ...	4,83,580	Woollens ...	3,68,340
Jewellery ...	3,75,186	Sundries ...	*61,50,587
Machinery ...	58,996	Total Rupees ...	3,16,55,812

* Includes Government Stores

Do. do. Salt ...

26,64,239

4,30,197

Motorpha.—There was a decrease in the Motorpha revenue of Rupees 86,719 or £8,671, due to the introduction of the Income tax, which superseded it in many instances, and to the anticipated introduction of the License Bill.

The Stamp Revenue.—There was an increase of Rupees 5,29,730 or £52,973, owing almost entirely to the operation of Act XXXVI. of 1860, and to the anticipated introduction of Act XIV. of 1859, regarding the limitation of suits.

The Frontier Customs on the French and Portuguese borders increased by half a lakh.

Income Tax.—So far as can be ascertained the results were,—

Demand of three Quarters ... Rs. 5,89,398

Collection at 3 & 2 per cent....3,93,184

Do. at 1 per cent. ... 99,648

4,92,832

Balance Rs. 96,566

Local Funds.—In 1859-60 there was a total income of Rupees 3,17,242, and an expenditure of Rupees 1,53,880 or

about one-half of the year's available resources, leaving Rupees 1,63,362 to be brought forward to the year under report.

District Presses were in every district except North Canara which alone was without its local Gazette.

The Huzur and Taluq revenue establishments were revised, with an annual saving of 12 lakhs. The Pearl Fishery off the coast of Tinnevely realised a net profit of £22,186.

Emigration.—From Tinnevely there emigrated to Ceylon in the course of the year 15,253 men, women, and children, being 6,426 in excess of the previous year; the increase being attributable to the pressure on the working classes from the circumstances of the season. There returned from Ceylon during the same period 13,909 previous emigrants, or 787 less than in the former year. From Tanjore there emigrated 1,699 persons, being little more than half the number for the previous year—a result due in great measure to the increased local demand for labor created by the Railway works, but also to some extent caused by the extension of cultivation. It is satisfactory to know that the Mirasidars or proprietary farmers of this wealthy District were compelled by the force of circumstances to raise the wages of their farm labourers; the insufficiency of which, combined with the influence which enabled them to secure for themselves a monopoly of the labor supply, had long afforded ground of local complaint. From Madura there left for Ceylon 26,883 Emigrants, while 17,094 previous Emigrants returned. This has led to the introduction of a gold currency in sovereigns.

Income Tax in Madras—There is reason to believe that the collections for the Town of Madras will not exceed 3 lakhs (exclusive of official salaries and Government Securities). This amount appears small in relation to a city with 700,000 inhabitants; but Madras has no large class of wealthy natives, while the European merchants are few in number, and the trade of Madras is small as compared with that of Bombay and Calcutta, added to which the various Banks, with the exception of the Bank of Madras, and the P. & O. Company, have Head Offices elsewhere, and have not therefore been assessed at Madras on their profits: in the same manner many of the principal Native merchants and Soucars only carry on business at Madras by means of branch Establishments, and claimed to be assessed at the places where the principals reside. The total number of special notices issued up to the 30th April 1861 was 23,286, to which date 18,927 returns were received. The cost of collection up to 30th April was Rs. 52,560.

The Revenue Survey was carried on in Godavery, Kistna, Trichi-

nopoly, Salem, Nellore and the Wynaad division of Malabar. 1673 villages were demarcated, comprising an area of about 4,810 square miles. 1,749 villages were classified for assessment, containing an area of 4,225 square miles, and 1,128 villages with an area of 3,568 square miles were surveyed during the year.

The *Inam Commission* confirmed 79,948 titles, referring to 958,523 acres whose estimated assessment was Rs. 12,62,948 with an existing *jodi* of Rs. 1,05,446. The additional quit rent agreed to be paid for enfranchisement was Rs. 1,52,034, and the quit rent not agreed to be paid was Rs. 7,002. There were 1,33,040 decisions by deputy collectors. Of cases redeemed there were 88. The quit rent redeemed was Rs. 178-8-5 and the amount paid Rs. 3,557. The settlement met with no opposition. The work of the Commissioner is thus summed up. In round numbers, one million and two hundred thousand acres, of the annual value of 17½ lakhs of Rupees, and bearing a present *Jodi* of Rupees 1,60,000, have been enfranchised ; bringing in an addition to the annual revenue of Government of two lakhs of Rupees.

Conservancy of Forests.—The discontinuance of public works lessened the demand for timber. Planting operations were systematically continued in the Annamallai forests. The demand was increased in the North Canara forests. Storing of timber was largely carried out in the Mudumallai and Segur forests. The Salem, Cuddapah and Neilgherry forests were strictly conserved. The future supply of teak depends merely on the Conolly Teak Plantations. The Australian trees progressed in the Wellington Plantations. The Cinchonas flourished in the Ootacamund gardens.

PUBLIC WORKS.—With 3 lakhs for the Upper Godavery the sum allowed was 48 lakhs exclusive of establishments. All this was not expended from want of supervision and of labour. On the Upper Godavery there was spent Rs. 82,362 thus.

Improvements in river-bed between Dowlaishwaram

and Buddrachellum ...	...	Rs. 19,560
Permanent works at the Sinteral barrier	...	45,905
Building hulls of two Steamers	...	16,897

142,300 tons of Government stores were carried by water one mile at a cost of 3 annas 1 pie per ton owing to the late period of the year. In addition to these stores and exclusive of timber and bamboos, the traffic of the river for 25 miles above Rajahmundry, is estimated at 32,000 tons. The removal of the old transit duties, and the cession of the left bank of the Godavery to Government, operated favorably on the timber trade ; 6,000 logs of teak were last year sent down to Coringa, from the Pranheeta, from whence it is believed teak was never before

exported. The expenditure on roads in Wynaad was Rs. 11,995.

The Madras Irrigation and Canal Company confined its operations to the detailed surveying and planning of the several sections of the project. The total expenditure in India up to 30th April 1861 was Rs. 6,46,689.

Railways.—On the 23rd May 1860, the Madras Railway Company opened to the public the portion of the South-west line between Vaniembaddy and Tripatoor, 14 miles; and on the 1st February 1861, a further length of 70 miles from Tripatoor to Salem, thus completing the communication from Madras to the latter place, a total distance of 207 miles. On the 4th March, they opened a small portion of the North-west line, viz., from Arconum, which is the junction station of the North-west and South-west lines, to Naggery, a distance of 17 miles; and on the 12th March they opened the South-west line from Beypoor, the Western Terminus, to Tiroor, a distance of 18½ miles. The line between Tiroor and Coimbatore, 85½ miles, is so far advanced that it will probably be ready for traffic on the 1st July, with the exception of 8 miles, west of a point 57 miles from Coimbatore, over which the earth-works will require the next monsoon to consolidate them. Between Coimbatore and Salem, 94 miles, all that is required to complete the line are a few small bridges, and the placing of the girders of the Cauvery bridges. The line through, from coast to coast, is likely to be opened by the end of 1861. The fares charged were

Passengers, per mile.

	1st Class.	2nd Class.	3rd Class.
Fares for Passengers.	A. P.	A. P.	A. P.
	1 0	0 6	0 2

Goods, per ton per mile.

	1st Class.	2nd Class.	3rd Class.
For Goods.	8 pice.	10 pice.	12 pice.

The traffic was.

PASSENGERS.

South-west Line.

				RS.	A.	P.
Number of Passengers carried by the Railway, and the Revenue therefrom.	1st Class	...	2,451	...	14,178	3 2
	2nd Class	...	9,555	...	18,837	12 9
	3rd Class	...	10,01,228	...	3,86,699	15 11

North-west Line.

* From 4th March to 30th April 1861.	1st Class	...	21*	...	21	3 0
	2nd Class	...	208	...	97	13 0
	3rd Class	...	19,022	...	2,366	15 2

GOODS.

South-west Line.

		Maunds.				
Number of maunds of Goods carried by the Railway, and the Revenue therefrom.	1st Class	21,00,574	...	2,60,456	9	3
	2nd Class	7,25,112	...	1,13,718	12	8
	3rd Class	1,25,347	...	20,525	4	2

North-west Line.

* From 4th March to 30th April 1861.	1st Class	...	22,414*	...	534	10	6
	2nd Class	...	35,204	...	1,050	13	10
	3rd Class	...	1,300	...	63	5	0

The total expenditure sanctioned by Government from the commencement, in March 1853, up to 31st December 1860, amounts to Rupees 3,10,46,768-15-9. The whole Great Southern of India railway from Negapatam to Trichinopoly, will in all probability be opened to traffic in October or November 1862. It is expected that a section, 15 miles in length, from Negapatam to Trivellore will be first opened about the middle of June, and that another portion, 34 miles in length from Trivellore to Tanjore, will be opened in July or August.

MARINE.—There was only one instance of the overcrowding of a native passenger vessel. The survey of the Coast as far as Point Calimere was completed by Lieutenant Sweny, I. N., last season, and the vessels employed, the brig *Mutlah* and schooner *Charlotte*, returned to Calcutta in September 1860. The charts had not yet been received. The only remaining part of the coast left unsurveyed is, from the Santapillay rocks to the Northern extreme of the Ganjam District. The Bay of Bengal S. N. Company commenced running, under a subsidy, steamers between Madras, the Northern Ports and Rangoon. No damage occurred to the Madras Pier since its erection. Vessels of 11 feet draught freely use the Paumben Channel.

FINANCIAL.—The total expected Territorial Income was Rupees 6,72,60,200, and the charges, 7,69,78,000. The total expenditure above Income stands, therefore, at Rupees 97,17,800, or 14½ per cent. The excess of charge, inclusive of the outlay on Public Works extraordinary, viz., Rupees 97,17,800, will have to be met from the Cash balance at the beginning of the year, which was Rupees 2,42,46,953. The following Statement exhibits the Estimated Revenues and Charges of the several Departments of the Administration for the year ended 30th April 1861, the proportion of the Revenues derived from each source, and the proportion which the Charges of each Department bear to the total Income :—

INCOME.	Total Estimated amount for 1860-61.	Percentage, &c., the proportion yielded by each separate source of Revenue.	CHARGE.	Total Estimated amount for 1860-61.	Percentage, &c., the proportion allotted to each branch of charge.
Land Revenue	4,05,64,900	60½	<i>Political Disbursements, viz.</i> Carnatic and Tanjore Stipends Compensations, Pensions, &c. A Total, Rs. 52,09,600 or 7½ per cent.	27,41,200 24,68,400	A. $\left. \begin{matrix} 4 \\ 3\frac{1}{2} \end{matrix} \right\}$
Salt	69,22,300	10½	<i>General Charges.</i> Salaries and Establishments in the General Department Public Instruction Charitable Contributions B Total, Rs. 76,20,400 or 11¼ per cent.	57,70,200 5,49,500 18,00,700	B. $\left. \begin{matrix} 8\frac{1}{2} \\ 7 \\ 2 \end{matrix} \right\}$
Tribute	34,46,400	5	<i>Judicial Charges.</i> Supreme Court, including Small Cause Court, &c. Court of Sudder and Foudary Adaulat Judicial Charges in the Provinces Police and Magisterial Charges at the Presidency Do. in the Provinces C Total, Rs. 65,17,100 or 10 per cent.	3,24,900 2,49,200 21,19,800 2,79,400 35,43,800	C. $\left. \begin{matrix} 1\frac{1}{2} \\ 1\frac{1}{2} \\ 3\frac{1}{2} \\ 1\frac{1}{2} \\ 5\frac{1}{2} \end{matrix} \right\}$
Abkarry	30,98,700	4½	<i>Revenue Charges.</i> Board of Revenue Other charges of collecting the Revenue D Total, Rs. 69,87,200 or 10½ per cent.	2,29,000 67,58,200	D. $\left. \begin{matrix} 1\frac{1}{2} \\ 10 \end{matrix} \right\}$
Land and Sea Customs	25,09,600	3½			
Income Tax	18,00,000	2½			
License Tax	3,50,000	½			

Postal Collections	9,22,000	1½	Establishment, &c., of the Superintendent of Marine and the Master Attendant, Coal, Establishment at the Out-Ports, &c.	3,76,600	4
Stamps	11,97,900	1½	<i>Military Charges.</i>		
Miscellaneous, i. e., Fees and Fines in the Judicial Department, Akbary collections in the Military Department, Extra Revenue, Mint Seignorage, Local Fund, &c. &c.	16,80,000	2½	European Force	76,16,000	11½
			Native Force	1,24,16,300	18½
			Staff of the Army and Military Offices	31,96,600	4½
			Commissariat Charges	67,01,800	10
			Stores	27,22,800	4
			Contingencies	84,84,000	12½
			E Total, Rs. 4,11,37,000 or 61 per cent.		
			Extraordinary Charges	7,29,300	1
Extraordinary Receipts, i. e., Value of Copper used in Coinage, Sales of Provisions, Stores, Horses, Refunds of Charges, &c.	30,29,700	4½	<i>Public Works Ordinary.</i>		
			Salaries, Establishment, and Contingencies of the Public Works Department, including those of the Consulting Engineers of the Railway and Irrigation Companies	17,62,900	2½
			Repairs of various works	33,15,000	5
			F Total, Rs. 50,77,900 or 7½ per cent.		
Profit and Loss	9,87,600	1½	<i>Public Works Extraordinary.</i>		
			Charges for construction of Works	23,27,400	3½
Expected Deficit to be met out of the Cash Balance in hand	97,17,800	14½	Total Public Works Rs. 74,05,300 or 11½ per cent.		
			Profit and Loss—i. e. Loss sustained in the rates of Exchange, &c.	9,95,500	1½
Rupees	7,69,78,000	114½	Rupees	7,69,78,000	114½

Coinage.—The silver and copper coins put in circulation during the past 7 years were :—

					Amount sent to the Interior.	
					Silver.	Copper.
In 1854-55	...	...	...	..	3,28,500	2,08,000
" 1855-56	...	...	..	..	4,03,500	84,300
" 1856-57	...	...	...	..	8,38,300	1,68,450
" 1857-58	...	...	...	..	8,19,500	2,60,000
" 1858-59	...	...	...	..	6,17,000	3,48,600
" 1859-60	...	...	...	..	4,53,000	2,31,700
" 1860-61	...	...	...	..	11,11,000	2,61,000
					45,70,800	15,62,050
					Amount supplied to other Presiden- cies.	
					Silver.	Copper.
In 1854-55	...	...	...	..	.....	1,10,000
" 1855-56	...	...	..	..	.. .. .	10,000
" 1856-57	...	...	...	..	.....	.....
" 1857-58	...	...	...	..	1,40,000	2,33,413
" 1858-59	...	...	...	..	.....	1,06,805
" 1859-60	...	...	...	..	1,00,000	8,00,000
" 1860-61	...	...	...	..	.....	5,00,000
					2,40,000	17,60,218

POLITICAL.—*Travancore and Cochin.*—On the 18th August 1860, H. H. Martanda Vurmah, Rajah of Travancore, died. He had just completed his forty-sixth year, and had reigned since the 26th February 1847. The next in the regular line of succession to the Mutsud was His Highness Carelah Vurmah, the Elliah Rajah, eldest nephew of the late Rajah; but as this Prince continued in the same state of hopeless imbecility under which he had long labored, the next heir, his brother, the first Prince Rama Vurmah, was acknowledged as Rajah of Travancore. The character of His Highness is represented by the Resident to be such as to afford good promise that he will be an enlightened ruler, and do justice to his high station. The installation took place on the 19th October 1860. In consequence of the mental imbecility of the second Prince

Ravi Vurmah, next brother to the present Rajah, His Highness and the principal members of the family expressed a desire that, although the Prince should be invested with the rank and title of Elliah Rajah, his younger brother Rama Vurmah should take the position at public Durbars usually occupied by the Elliah Rajah, and be nominated to succeed to the Musnud. This arrangement was accordingly authorized, on the understanding that it would be open to reconsideration if any marked improvement should manifest itself in the mental condition of the Prince Ravi Vurmah. The pepper monopoly was abolished in both states and 15 rupees a candy on all exports from the port of Cochin levied instead, the net proceeds to be paid to the Rajahs. Many imports were introduced into both states in public works and the administration of justice. The dearth in the South of Travancore was met by subscriptions applied by the missionaries. The financial results were satisfactory :—

Travancore.

			Rs.
Total Revenue.	1857-58	...	42,11,698
Do.	1858-59	...	42,77,119
Do.	1859-60	...	51,41,918
Disbursements.	1859-60	...	46,40,784

Cochin.

Total Revenue.	1858-59	...	9,06,657
Do.	1859-60	...	9,26,945

Tanjore.—The Commission appointed for the investigation and settlement of the claims against the late Rajah of Tanjore, having completed its inquiries, was closed on the 14th of August 1860. The total number of claims, including those for arrears of wages due to the servants of the Rajah's various establishments, was 3,957, and the aggregate of the sums claimed was Rupees 9,71,684. The total amount awarded was Rupees 1,86,332, of which Rupees 1,41,122 were awarded by the Commissioner, and Rupees 45,210 were added by Government. The Commissioner paid awards to the amount of Rupees 15,066, being for the most part those of petty sums which he was himself authorized to adjudicate. The awards on the heavier claims, amounting to Rupees 1,52,336, which form the major part of what remains for payment, were referred for the sanction of the Government of India.

Carnatic.—413 claims were filed against the late Nawab's es-

tate under Act XXX. of 1858, for a sum of Rs. 1,22,08,500. With one exception all were settled for Rs. 32,91,610. Only 21, of the 412 cases settled, were tried in the Supreme Court.

Poodoocotta.—The affairs of the Poodoocotta State continued to be administered by the Sirkele, under the supervision of the Political Agent, whose interference is confined to watching the receipts and expenditure and to urging activity in the disposal of Civil and Criminal cases. The interference now exercised was sanctioned in 1854, and is considered to act as a very good check on both the Rajah and Minister. The year 1859-60, being the last reported on, was an average one. The revenue from Land and Extra sources amounted to Rs. 2,88,890, and showed an increase above that of the preceding year of Rupees 5,115. The total actual receipts from all sources, together with the balance brought forward from the previous year, amounted to Rupees 7,44,695, and the disbursements for the year to Rupees 4,77,593; thus leaving a surplus in excess of expenditure of Rupees 2,67,002. Government refused to restore to the Rajah his title of Excellency.

MILITARY.—The native infantry corps were reduced each from a strength of 1,000 to 700, or 4,886 less in the whole infantry, up to 1st May 1860. The strength of each was subsequently fixed at 600 in 8 companies. The result was that from a total effective strength of 48,543 combatants on the 1st May 1860, the number, according to the latest returns, was reduced to 39,216 on the 1st May 1861, which leaves only 2,140 of *all ranks* in excess of the total revised establishment of the Native Infantry of this Army. Simultaneously with the re-organization of the Infantry, the Native Cavalry was reduced to four Regiments, by the breaking up of the 5th, 6th, and 7th Regiments, and by the 31st of December following this measure had been fully effected. The Sapper Militia Regiment was disbanded in the month of May 1860. The Native Artillery was also reduced, the Golumdauze Battalion by 79 men and the Karkhanahs by 472. The two Native Veteran Battalions were reduced. The Hoonsoor Training Depôt for Cattle was abolished. The requirements of the service in respect to draught cattle, will henceforth be met from the ordinary resources of the country. The surplus horses were sold at the Remount Depôt at Osoor. The Pay Offices at Vellore and Masulipatam were abolished and incorporated with those of the Presidency and Vizagapatam respectively, from the 30th November 1860. The appointment of Brigades

Major to Her Majesty's British Forces in Madras, was also discontinued from the 31st January 1861, the duties being transferred to the Fort Adjutant of Fort Saint George. The experiment of employing East Indians as Artillery Drivers, which promised well at first, failed. Only men of an inferior class would present themselves for enlistment. The Secretary of State for India, considering the importance of diminishing as far as possible the demand on England for recruits, expressed a desire that the experiment should not be hastily abandoned. On a full review of the subject, however, the Madras Government concurred with the Commander-in-Chief in considering that any further measures for carrying out the object would not be productive of good.

EDUCATIONAL.—The Directing and Inspecting Agency consisted of a Director of Public Instruction, five Inspectors of Schools, one Deputy Inspector for the Districts of North and South Canara and Malabar, and eleven Deputy Inspectors of a lower grade. The number of schools connected with the department at the close of the year was 579 with an attendance of 23,965 pupils. As to the Agency by which they were managed, the schools were thus distributed :—

Name of District.	Government Colleges and Schools.	Pupils.	Schools supported by a rate under Government management.	Pupils.	Private Colleges and Schools which are in the receipt of or have received grants-in-aid.					Private Schools under inspection which have not received grants.	Pupils.	Total Colleges and Schools.	Total Pupils.
					Established by Missionary Societies.	Established by Natives.	Established by Europeans and Natives combined.	Others.	Pupils.				
Ganjam	27	871	...	...	...	...	...	1	37	1	65	29	973
Vizagapatam	4	130	...	...	...	...	...	...	...	2	217	6	347
Godavery	14	708	102	1,957	...	...	...	...	53	...	...	117	2,718
Kistna	1	22	...	...	2	1	...	...	390	2	61	6	473
Kurnool	1	120	...	...	...	...	...	...	...	...	...	1	120
Bellary	3	322	...	...	4	...	...	...	211	...	...	7	533
Cuddapah	1	70	...	...	...	...	...	...	...	...	...	1	70
Nellore	8	83	...	...	4	...	1	...	240	...	...	13	323
North Arcot	9	1,295	...	...	...	...	...	2	61	...	...	11	1,356
Madras	17	2,136	...	...	20	4	...	1	3,142	...	...	42	5,278
South Arcot	9	560	...	...	...	...	...	...	...	...	...	5	560
Salem	5	314	...	...	...	...	...	...	...	...	...	5	344
Tanjore	9	645	...	...	65	...	...	...	1,337	...	...	74	1,982
Coimbatore	8	274	...	...	10	...	1	...	...	13	273	32	798
Trichinopoly	1	30	...	...	14	...	...	...	316	...	...	15	896
Madura	4	87	...	...	6	...	...	...	146	...	44	11	507
Tinnevely	0	10	...	...	175	1	...	...	5,842	1	...	176	5,842
North Canara	1	57	...	...	...	1	...	...	...	...	...	2	167
South Canara	4	121	...	...	5	3	...	...	110	...	...	12	476
Malabar	6	387	...	...	1	...	...	3	315	...	...	10	702
Total	132	8,512	102	1,957	307	10	2	7	12,806	19	660	579	23,965

Of these 44 with 7,323 pupils professed to educate up to the University Matriculation standard ; 132 with 5,930 pupils were of the grade of Taluk Schools ; 399 with 10,142 pupils were village schools ; and 4 with 570 pupils were professional schools. Of the whole 23,956 pupils, 267 were Europeans, 872 East Indians, 5,441 Native Christians, 15,567 Hindus and 1,718 Mahomedans. Of the whole 1,083 were girls, of whom 42 were Europeans, 12 East Indians, 398 Native Christians, 610 Hindus and 21 Mahomedans. As to language, 10,350 were instructed in English, 24 in Greek, 62 in Latin, 29 in Sanscrit, 4 in Arabic, 817 in Persian (of these 722 studied in Yeomiah Schools which are useless) 792 in Oorya, 4,994 in Telugu, 12,560 in Tamil, 439 in Canarese, 638 in Malayalum and 421 in Hindustani.

The Madras University held three examinations in February, one for the Matriculation, one for the Degree of Bachelor of Arts, and one for the Degree of Bachelor of Laws. At the Matriculation examination eighty candidates presented themselves, of whom forty-eight passed, seven in the first class and forty-one in the second. One candidate was compelled by illness to retire from the examination, and thirty-one failed. There were ten candidates for the degree of B. A., of whom nine had received their education in the Presidency College, and the other at the American Mission Seminary at Madura. Six candidates, all Presidency College students, passed, two in the first class and four in the second. The results of the examination were creditable to the Institution in which the successful candidates were educated, the lowest obtaining more than five-twelfths of the maximum number of marks ; but the Examiners again noticed that the Arithmetic of the successful candidates was by no means commensurate with their other attainments. Five candidates went into the B. L. examination, of whom four passed ; the Examiners reporting very favourably as to their attainments. The Senate resolved, with the view of encouraging a sound knowledge of Arithmetic, that a separate paper should be set in that subject, both for the Matriculation and the B. A. examinations. It was determined that the University Matriculation examination shall be held at the same time and place as the examination of candidates for employment in the public service, and that the University Graduates and Matriculated Students shall be registered in the lists of candidates eligible for employment, but in separate classes, the candidates who merely pass the service-test being ranked in the third or lowest class. The University examinations will thus be more closely connected with the examinations for admission to the public service. The University

Graduates and Matriculated Students will be brought under the special notice of Heads of Departments desiring to employ well-educated young men, and by this means a more tangible value will be given to the University examinations than at present attaches to them. Separate provision is to be made for testing what may be called the professional qualifications of candidates for particular Departments or Offices, for which peculiar qualifications are required. These tests are to be settled by the Controlling Boards or Heads of Departments in communication with the Officer appointed to direct the Uncovenanted Service examination.

Grants-in-Aid.—The sum appropriated, Rs. 37,000, was all expended. There were 326 private schools with 12,806 pupils under inspection.

Expenditure.—The returns are not complete, but the following figures are given as a tolerably correct estimate :—

	Rupees.
Salary and Office charges of the Director of Public Instruction	45,200
Salary, Office charges and travelling allowances of the Inspectors and Deputy Inspectors	86,000
University of Madras	7,500
Government Colleges and Schools	3,20,900
Grants-in-aid	35,000
Grant to the Madras School Book Society	2,000
Preparation of School Books	26,000
Educational Buildings	38,300
Total Rupees ...	5,60,900
<i>Deduct.</i>	
School fees	7,000
Proceeds of sale of books	27,900
	34,900
	5,26,000

Donations amounting to Rupees 32,000 were contributed by the public, principally for the erection of School houses.

ECCLESIASTICAL.—Of the forty Chaplains, the recognized strength of the Establishment, twenty-six were actually engaged on duty. Of the remainder, nine were on leave on sick certificate, (seven in England, two on the Neilgherry Hills.) One was in England on furlough, and one on private affairs. Three vacancies make up the number of forty. In the military cantonments of Bellary and Secunderabad, the churches were placed at the disposal of the Established Church of Scotland. Inquiries were instituted with the view of the Bishop preparing a scheme for

improving the education of the poorer classes of Protestant Christians. The Colonial Church and Additional Clergy Societies conferred great benefits on the diocese.

Missions.—During the eleven years of the late Bishop's episcopate, there was marked, though perhaps not rapid, progress in the Missions, both of the Society for the Propagation of the Gospel, and Church Missionary Society. Above 10,000 were added to the number of Native Christians and about 3,000 to the habitual communicants in connection with the Church of England. The total number of persons confirmed during the same period was 22,202, of which 17,379 were Natives, and 4,823 Europeans and East Indians, giving an average of more than 2,000 each year. The proportion of candidates confirmed to the Christian community will bear comparison with that of most Dioceses in England. The late Bishop held 24 Ordinations, at which 53 persons were admitted to Deacons', and 71 to Priests', Orders, giving a total of 124, a considerable number being Natives. The fact that above 20,000 Rupees are annually subscribed by Native Christians towards benevolent and charitable purposes, is noticed as a gratifying result of Christian teaching.

The two Missionary Societies afforded very large assistance to the cause of education. They had in the Diocese 780 schools, with an aggregate of 17,840 scholars. They gladly avail themselves of the grant-in-aid system, so far as practicable, and endeavour to strengthen the hands of the Director of Public Instruction, while they thankfully acknowledge the aid which his Department renders to them.

MEDICAL.—There was a decrease of 10,701 of sick treated in the Civil Dispensaries :—



DIVISION.	TOTAL.			
	Treated.	Died.	Average daily sick.	Percentage of deaths to strength.
Presidency	1,26,387	579	1,939	0.4
Southern	88,228	458	1,455	0.5
Mysore	1,617	14	24	0.8
Malabar and Canara ...	19,753	60	385	0.3
Ceded Districts	20,205	61	289	0.3
Northern	21,182	117	59	0.5
Hyderabad Subsidiary Force ..	3,761	49	83	1.2
Nagpore Force	2,665	39	61	1.5
Total	2,83,698	1,377	4,295	0.4
Total of 1859-60	2,94,399			
Decrease in 1860-61	10,701			

There was a decrease of 4,918 in the number of operations. The failures were at the rate of 85.3 per thousand. In the jails the death-rate diminished from 7.7 to 6.4 per cent. of average strength. There were 338,703 vaccinated of which 309,783 were successful. The ratio of failures was 85.3 per thousand. The European and Native troops in the Presidency proper were very healthy. The death-rate in the European Army was only 16 per thousand of mean strength, and of the Native Army, 13 per thousand.

EMIGRATION.—The number of emigrants was less in 1859-60, the number of souls embarked being 14,057, while during the year under review they did not exceed 6,479, of whom 984 proceeded to Natal and 259 to St. Vincent. Out of 3,446 souls embarked for the Mauritius in eleven ships, only twenty-four deaths occurred, which is an average of 0.7 per cent. Four ships reached the Colony without a single casualty, and in the "Thracian" there was only one.

Presidency Town Municipality.—The total income was Rs. 4,77,966-8-3 and expenditure Rs. 2,71,977-8-3. The population of Madras and its suburbs is estimated at 700,000. The number of deaths reported was :—

	Males.	Females.	Children.	Total.
	3,958	4,128	5,412	13,498
against	3,299	3,183	3,784	10,266 in 1859—

Of the above, 2,576 were cholera cases, against 1,861 in 1859; 2,047 in 1858 and 1,775 in 1857. The Trevelyan Waterworks were nearly completed and thus led to increased expenditure. This was the first distinct work of any magnitude undertaken by the Board since its formation in 1857. The Board complain of their small income.

Observatory.—In consequence of frequent changes the mounting of the fine new Transit Circle, received nearly four years since, was still unfinished; the projected equatorial room and dome had not yet been commenced; astronomical observations were suspended, and the reductions of all kinds fell into arrears, while no fresh pursuit could be attempted, notwithstanding the urgent demands of the science for such assistance from every competent quarter. A new Planet, named Asia, was discovered by the Astronomer, shortly after his arrival. Observations were secured of it, as also of certain Variable Stars, in continuation of a former series of many years extent. The return to maximum brilliancy of the most remarkable object of this class, viz., U. Geminorum, was recorded at an undue and therefore unexpected and most important time. An ephemeris of the Variable Stars for 1861, and papers upon the new Planet, were communicated to the *Astronomische Nachrichten* and *Monthly Notices of the Royal Astronomical Society*.

Museum.—The repairs and alterations on the building were completed during the year. The Visitors amounted altogether to 5,27,753, of whom 70,807 were able to write their names in the Visitors' book. Of the signatures, 21,863 or 1 in 3½ were in English, 33,706 in Tamil, 9,951 in Telugu, and 4,529 in Hindustani. There were 573 additions to the Museum of which 296 were donations.

ADMINISTRATION OF THE STRAITS SETTLEMENTS.

1860-61.

Civil Justice.—The number of Civil Cases tried in Prince of Wales' Island was 278, in Singapore 292, and in Malacca 145.

Criminal Justice.—The number of cases tried in Prince of Wales' Island was 81, in Singapore 38, and in Malacca 34. A case

of piracy was tried in the Supreme Court at Singapore. The offenders had attacked two boats' crews of Chinese about three years ago. When information of their hiding place was obtained the steamer *Hooghly* succeeded in capturing them.

Police.—The conduct of the force generally was good. In the three settlements the number of cases reported was 9,822 and of persons arrested 12,183. There was a diminution in the amount of crime, especially as regards offences of the more serious nature.

Revenue.—The land revenue amounted to Rs. 1,73,974, being an increase of Rs. 31,621. The revenue from excise was Rs. 11,42,531. The judicial receipts amounted to Rs. 46,440 and the general receipts to Rs. 1,35,052.

Public Works.—In Singapore a variety of unimportant works was undertaken. In Penang the progress made with respect to new roads and bridges was not so great as was anticipated. The old roads were maintained in a creditable state of repair. A Light House was constructed on Cape Rachado on a site granted by the Rajah of Lookoot with the sanction of the chief of Salangore.

Marine.—A chart room was established in the Sailors' Home, for the convenience of sea-captains. The Admiralty furnished a liberal supply of the newest charts.

Finance.—The disbursements amounted to Rs. 22,71,243. The great increase of expenditure at Singapore took place under three heads only, viz., General, Educational and Public Works. At Penang the increase of expenditure was comparatively slight. At Malacca the increase was owing to Public Works.

Political.—The Chinese miners in Joongie Ujong rose against the Malays, but were speedily overcome and sought refuge in the British territories and neighbouring native states. A petty chief established a toll upon the Langie River at a point where it forms the boundary of the British territories, but the illegal exactions were stopped. The disturbances along the Perak bank of the Horeean river were suppressed and order restored.

Military.—The relief of the 22nd M N I at Penang was effected towards the close of the year by the 20th M N I. The detail at Labuan was relieved by a party from the 40th Regiment. Consequent on the recent reduction in the Madras Army the strength of the native portion of the Garrison of the Straits was materially decreased. The health of the troops during the year was good. A considerable addition was made to the strength of the Volunteers, the number being raised to 110. Colonel Cavanagh assumed the command vacated by Brigadier Burn. A Volunteer corps was established at Penang.

Agriculture.—The yield of rice was satisfactory and in the Province the culture of the Sugar cane was still very general and that of the Caraya or Tapioca plant was extending rapidly. Improvements are continually effected in the system of manuring, &c., in the field and in the machinery used in the factories. At Malacca the harvest was poor owing to the inundations.

Survey.—Mr. Quinton completed his map satisfactorily. It is a sketch of territory 630 square miles in extent effected at a cost of Rupees 11 per square mile. A Revenue survey map of the district of Malacca was in course of preparation.

Municipal.—At all three stations there was a slight increase in payments made to the Municipal Funds, the rise having chiefly taken place in the assessment of houses. A sum of Rs. 5,78,311 was raised in the three settlements during 1860 being an increase of Rs. 23,232 on the previous year. The disbursements shew a decrease of Rs. 92,231 and on this year brought within the receipts.

Jails and Hospitals.—The Lunatic Asylum was completed. In Her Majesty's Jail there was little or no sickness. The value of the labor of the Local prisoners is estimated at Rs. 18,821, and the cost of their maintenance was Rs. 11,214.

Commerce.—Imports during the year amounted to Rs. 5,81,26,880, and the exports to Rs. 4,18,78,748; in the former the increase arose chiefly from Great Britain and the rest of Europe to the extent of Rs. 16,12,995, and in the latter, the decrease amounted to Rs. 53,20,391; more than half of which was occasioned by a falling off in commercial transactions with China. There was an increase of trade with Australia.

ADMINISTRATION OF BENGAL

1860-61.

JUDICIAL—Civil Justice.—The new Code of Civil Procedure led to a marked improvement in the administration of civil justice. The majority of cases, from their first institution to their final decision, did not occupy six weeks. There was also an improvement in the quality of the work done in the subordinate Courts. While the Sudder confirmed only 196 out of 513 orders of the lower Courts in 1856, and 355 out of 822 in 1859, it confirmed

1,158 out of 1,453 in 1860. The decrease in the number of false suits is seen in the fact, that while in 1856 there were decided in favour of the Plaintiff 33,799 original suits and 16,601 against him, and in 1859 there were 40,764 for and 20,441 against him, in 1860 there were 60,070 for him and 21,763 against him. These figures, the Report remarks, shew either that under the present simple code of procedure just claims are not defeated by any technicalities of law, and that substantial justice is done to all parties; or that the provision regarding the verification of plaints, introduced into the new Code as a safeguard against fraud, has deterred false litigants, by the fear of incurring the penalties of perjury, from bringing forward frivolous or unfounded claims. The description of original suits instituted is seen from the following :—

	1856.	1857.	1858.	1859.	1860.
Connected with Land Rent -	17,192	14,745	17,860	20,654	2,234
Otherwise connected with Land -	8,662	8,735	13,066	11,347	12,201
Connected with Debts, Wages, &c. -	53,864	53,628	55,534	70,003	71,215
Do. do. Caste, Religion, &c. -	558	555	422	503	471
Do. do. Indigo, Sugar, Silk, &c. -	2,155	2,172	2,675	3,078	2,563
Total	82,431	79,835	89,557	1,05,585	88,684

The great decrease in the number of suits connected with land rent is traceable to the operation of Act X., 1859, which transferred all cases of this description from the Judicial to the Revenue tribunals, in the first instance. The number of cases connected with debt, wages, &c., shows how greatly the number of commercial transactions between man and man has increased, and is conclusive proof of the growing wealth of the country. The total value of property under litigation, that is, upon which decisions were actually passed during the year, in the Regulation Provinces, amounted to £4,810,852. This large amount does not include the value of the suits decided before the Revenue tribunals. In the Non-regulation Provinces of Assam, Chota Nagpore, and Arracan, 14,698 cases were instituted during the year, and 4,985 were pending from the previous year. Of this number 16,805 were decided, 8,704 being given in favor of the plaintiff, and 2,671 in favor of the defendant. The following figures will exhibit the number and the description of cases which were brought in the Courts during the past three years :—

		1858-59.	1859-60.	1860-61.
Number of Cases instituted.	English	5,450	6,452	6,524
	Native	24,506	25,835	25,253
	Total	29,956	32,287	31,777
Cases under Rupees	... 10	16,067	17,032	16,695
"	... 20	5,850	6,118	5,791
"	... 50	4,745	4,869	5,019
Above 50 & below	... 500	3,294	4,268	4,272

In a financial point of view the results of last year were most satisfactory. The amount of fees, fines, &c., carried to the credit of Government was Rupees 1,29,165 (£12,916), while the expenditure amounted to Rupees 1,12,282 (£11,228), leaving an available balance of Rupees 26,283 (£2,628).

Small Cause Courts on the English system were established in the suburbs of Calcutta, in the provincial cities of Patna, Dacca, and Moorshedabad, and in the Indigo Districts of Nuddea and Jessore. The jurisdiction of these Small Cause Courts is identical with the Sub-Divisions of the District, which comprise, on an average, an area of 400 square miles. A set of rules was published for the examination of Pleaders in five suburban and two provincial Districts, where Government Colleges have provided for adequate legal instruction. For the curtailment of native holidays a Bill was passed empowering the Sudder to fix, at the commencement of each year, the number of holidays to be observed. The number was reduced from 70 to 59. The Lieutenant Governor resolved that, as a general rule, native gentlemen should not be appointed as Judges in the District in which they resided. The deserving class of Principal Sudder Ameen were rewarded, by appointing them to be Registrars of Deeds in their respective Districts, and throwing the fees into one general Fund to be rateably divided amongst them at the close of the year.

Criminal Justice.—1,12,507 persons were under trial in the Regulation Provinces, and 11,455 in the Non-Regulation Provinces of Bengal. Of this number 78,516 were either punished by the Magisterial Officers or committed to the Sessions, and 40,611 were acquitted. The proportion of acquittals to convictions is certainly large, but more so in appearance than in reality, for among the 40,611 are included not only those who were

acquitted upon trial, but a number of persons who were merely arrested on suspicion and forthwith discharged for want of tangible evidence to put them upon their trial. An analysis of the particular crimes for which the 1,12,507 persons were tried in Bengal, will show how small a portion of the offences which were committed last year were of a heinous nature—

<i>Crimes.</i>	<i>Number of Persons tried.</i>	
1. Murder, Wounding with intent to Murder, and Culpable Homicide,	1,599
2. Dacoity,	2,099
3. Highway Robbery,	358
4. Burglary, Thefts, and Cattle-stealing,	12,812
5. Child-stealing,	31
6. Receiving stolen property,	507
7. Affrays and Riots,	897
8. Arson (including Incendiarism),	286
9. Forgery and Perjury,	569
10. Counterfeiting the Coin,	31
11. Rape,	143
12. Miscellaneous offences of a trivial nature not included in the above,	93,175
Total,		1,12,507

About 80 per cent., of the persons under trial were brought before the Criminal Courts on trivial charges. The paucity of heinous offences will, perhaps, be more strikingly exhibited by a review of the sentences passed upon the 69,247 persons who were punished during the year, in the Regulation Provinces of Bengal.

Released on security or simply fined,	...	...	50,427
Dismissed from office,	...	...	1,925
Flogged,	...	...	1,322
Sentenced to imprisonment not exceeding six months,			10,844
" above six months and not exceeding three			
years,	...	...	2,310
" above three and not exceeding sixteen years,			2,089
" above sixteen and not exceeding twenty-one			
years,	...	...	72
" for life,	...	...	19
" Transportation,	...	...	192
" Death,	...	...	47
		Total,	69,247

As to witnesses 3,20,294 were detained 1 day, 40,892 two days,

7,202 three days, and 1,969 above 3 days. Plains were prepared to improve the arrangements of the Court rooms.

POLICE—Military.—The strength of the Corps, on the 1st of May 1860, consisted of 39 European Officers and 8,903 Natives of all ranks; and the duties on which they were then employed were as under :—

	European Officers.	Men.
On the usual Escort duties ...	0	3,189
On Command at Outposts ...	8	0
Sick, &c. ...	2	507
Recruits ...	0	332
On Furlough ...	0	247
On the Kookie Frontier ...	0	96
In the Indigo Districts ...	7	732
At Zillah Stations, as Reserve ...	22	3,710
	<hr/> 39	<hr/> 8,903

Civil.—Measures for their complete reorganization under a new system were under consideration when the year closed. The suburban police were placed under the Calcutta Commissioner. The Thannah and sub-divisional boundaries in Nuddea were adjusted. The district of Baraset was converted into a sub-division. Forty-five Honorary Magistrates were appointed in Calcutta and forty-five in the Mofussil.

Jails.—The number of prisoners in custody was 67,836, viz. :—

	Males.	Females.	Total.
Number remaining in Jail on the 31st December 1859 ...	17,524	616	18,140
Number admitted during the year 1860 ...	48,391	1,305	49,696
	<hr/> 65,915	<hr/> 1,921	<hr/> 67,836

The whole cost of the year 1860-61 amounted to Rupees 7,07,349-10-7½ against Rupees 7,95,109-11-7½ of the previous year. The average cost of each Prisoner was Rupees 39-8-0 against Rupees 41-13-5 in 1859-60. Of 16,205 prisoners sentenced to labour more than one-half were employed in manufactures. The net profit was Rs. 2,65,121, or Rs. 40,420 more than in the previous year. The number of deaths was 2,440, against 2,116 the previous year. Of 46,696 persons admitted during the year, 872 males and 5 females were fairly educated for their position in life; only 3,268 females and 1 male could read and write; and 44,252 males and 1,298 females were altogether ignorant, 235 escaped and 77 were recaptured.

REVENUE.—*Land*.—The aggregate results, compared with previous years, are shown in the following Table :—

YEARS.	DEMANDS.	COLLECTIONS.	REMISSIONS.	BALANCES.
1845-46	4,01,61,606	3,54,56,162	7,86,560	39,18,884
1855-56	4,07,74,371	3,71,98,519	4,44,095	31,31,757
1859 60	4,12,02,482	3,77,24,615	2,48,251	32,29,616
1860.61	4,11,86,655	3,79,16,962	1,49,428	31,20,245

410 estates were sold by Government with a sudder jumma of Rs. 1,69,115 and a gross rental of Rs. 2,36,066 ; they realised Rs. 18,32,493. The upset price was generally fixed at one year's gross jumma. The number of Khas Mehals remaining for disposal is 4,747. Taking the results of past sales as a guide, it may be calculated that the price to be realized, at the average of seven and half years' sudder jumma, will amount to Rupees 1,19,64,728-8-10.

The following grants of Waste Lands were made under the local rules :—

DISTRICTS.	Number.	Area in Acres.
Soonderbuns	25	1,82,366
Durrung	1	280
Serbsaugor	9	2,968
Akyab	28	16,425
Darjeeling	13	3,320

From the sale of the Soonderbuns Lots Rupees 25,984 were realised ; the revenue eventually expected from them, after the expiry of fifty years, is Rupees 25,984 per annum. 536 estates, paying a sudder jumma of Rs. 1,267 were redeemed at the price of Rs. 18,222.

Customs.—The net revenue was Rs. 2,21,52,344. A uniform tariff for all India was agreed on.

Salt.—During the past twenty years the consumption of Salt in Bengal has increased 63.19 per cent. In 1840-41 the annual consumption of Salt in this presidency was 54,72,719 maunds (201,040 tons) ; in 1860-61 it amounted to 86,60,996 maunds (318,141 tons).

The following Table shows the rates of duty and average annual consumption of Salt, from 1841 up to the end of the official year of 1860-61 :—

YEARS.	Rate of Duty per Maund.	CONSUMPTION.			Total.	Average An- nual Con- sumption.
		Government Salt.	Excise Salt.	Imported Salt.		
	Rs. As. P.					
1841-42	3 4 0	{ 47,86,303	6,12,691	53,98,994	{ 55,67,612
1842-43		{ 47,07,433	.....	8,92,740	56,00,173
1843-44		{ 47,36,636	.....	9,67,013	57,03,669
1844-45	3 0 0	{ 50,14,736	9,70,595	59,85,331	{ 60,18,571
1845-46		{ 43,14,496	.....	15,81,986	58,96,482
1846-47		{ 47,07,158	.....	14,66,744	61,73,902
1847-48	2 12 0	{ 49,07,387	16,15,084	65,22,471	{ 61,95,916
1848-49		{ 42,42,655	16,450	16,10,256	58,69,361	
1849-50		{ 44,71,456	23,630	21,03,218	65,98,304	
1850-51	2 8 0	{ 36,75,249	35,000	26,01,033	63,11,282	{ 63,23,716
1851-52		{ 31,16,098	18,600	29,26,865	60,61,563	
1852-53		{ 42,48,068	13,560	37,98,923	80,60,551	
1853-54	2 8 0 and	{ 44,13,220	45,400	26,88,828	71,47,448	{ 79,56,331
1854-55		{ 55,72,237	29,000	30,59,759	86,60,996	
1855-56						
1856-57	3 0 0					{ 79,56,331
1857-58						
1858-59						
1859-60	3 0 0					{ 79,56,331
1860-61						
1861-62						

The following Table exhibits the selling price of Salt and other articles of daily consumption at several periods during the last twenty years :—

ARTICLES.	June 1840.			October 1844.			April 1847.			April 1849.			December 1859			March 1861.											
	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.										
Salt per 100 Mds.	425	0		385	0		357	0		326	0		353	0		388	0										
Tabacco per Md.	2	8		2	4	to 5	0	3	0	to 6	4		2	10	to 6	0	5	0	to 5	8	4	8	to 6	8			
Gram (Patna)	1	0	to 1	3		1	5	to 1	6		0	15	to 1	1		1	2	to 1	4	1	11	to 2	2	2	6	to 2	7
Urrur Dhol	1	13	to 1	15		1	10	to 1	12		1	14	to 2	2		1	7	to 1	10	2	2	to 2	12	2	8	to 2	9
Paddy	0	11	to 0	15		0	10	to 0	15		0	9	to 0	14		0	7	to 0	11	1	2	to 1	4	0	12	to 1	4
Ghee (Cow's)	15	8	to 21	0		16	8	to 20	8		17	8	to 22	0		15	8	to 21	8	23	8	to 27	8	28	0	to 28	8
Oil, Mustard	4	10	to 4	14		6	4	to 6	8		7	4	to 7	12		6	12	to 7	0	9	4	to 9	6	17	0	to 18	8

But while there has been little or no fluctuation in the price of Salt during the last twenty years, the profits of those engaged in agriculture and the wages of the daily laborers have almost doubled. It follows, therefore, that the Salt Tax falls far more lightly upon the poorer classes now, than it did in 1840. The price paid to the Molungees for manufacturing Salt was raised from 6 to 8 annas a maund in Balasore, and from 7 to 8 annas a maund in the Agencies of Hidgellee and Tumlook.

Opium.—A short supply was counterbalanced by enhanced prices; the average price per chest last year being Rupees 1,960-13-6 against Rupees 1,708-15-6 in 1859-60, and the net receipt Rupees 3,60,93,619 (£3,609,361) against Rupees 3,63,62,276 (£3,636,227) of the preceding year, leaving a difference of Rupees 2,68,657 only in favor of the receipts of 1859-60 over those of the past year. The following Table exhibits the extent to which this diminution of the cultivation has taken place during the past eleven years, in the agencies of Benares and Behar :—

YEARS.	Number of beegahs cultivated in Behar.	Number of beegahs cultivated in Benares.	Total.	Price per Seer paid to the Cultivator.
1850-51	3,07,901	1,18,228	4,26,129	3 10 0
1851-52	3,57,330	1,37,841	4,95,171	3 8 0
1852-53	3,85,070	1,61,444	5,46,514	3 8 0
1853-54	4,28,327	1,87,924	6,16,251	3 8 0
1854-55	4,11,282	1,84,423	5,95,705	3 8 0
1855-56	4,06,394	1,76,147	5,82,541	3 4 0
1856-57	3,80,903	1,62,990	5,43,893	3 4 0
1857-58	3,44,650	*56,077	4,00,727	3 4 0
1858-59	3,41,495	1,26,143	4,67,638	3 4 0
1859-60	3,12,707	1,21,808	4,34,515	3 8 0
1860-61	2,81,126	1,39,441	4,20,567	4 0 0

* NOTE.—The small cultivation in the Benares Agency, in 1857-58, is accounted for by the mutiny.

Chests 29,350 of which 13,638 were Benares and 15,712 Behar was turned out against 21,427 the previous year. Since 1857, only six cases have occurred in which it has been necessary to have recourse to the extreme measure of realizing balances from defaulting Cultivators by the distress and sale of their property. These results cannot but be regarded as extremely satisfactory, when it is borne in mind that more than half a million of Cultivators yearly receive advances from the Opium Department.

Abkaree.—The net revenue was Rs. 41,62,576 shewing an increase of Rs. 3,93,733. The charges of the year were a little below 16 per cent. Rum was reduced to Rs. 2-4 a gallon as duty. The duty on Gunjah was raised to Rupees 2 a seer, being double the amount which it formerly nominally paid.

Stamps. The net revenue was Rs. 45,50,582 after paying as charges Rs. 1,42,891. Including the N. W. Provinces the revenue in 1845-46 was Rs. 37,38,485, in 1855-56 Rs. 41,63,325, in 1859-60 Rs. 54,75,894 and in 1860-61 Rs. 78,45,465. The gross collection of Postage Stamps was as follows :—

In the Lower Provinces	...	...	4,83,819	4	5
„ North-Western Provinces	...	...	2,47,952	15	9
„ Punjab	...	...	84,825	15	6
„ Oude	...	...	27,439	1	0

The Income Tax came into force from 31st July 1860. The total collections in the Presidency and Suburbs, up to the end of the year, amounted to Rupees 5,00,328, on an annual assessment of Rupees 10,76,540, of which Rupees 2,37,688 were assessed by the Special Commissioner. The May collections, so far as the District reports had been received, amounted to Rupees 5,64,377; to which may be added Rupees 1,94,926 for the Presidency collections for the same month, making a total of Rupees 7,59,303. The gross collections, therefore, of little more than five months, exceeded twenty-three lakhs of Rupees, out of a completed assessment of nearly thirty-six lakhs of Rupees. The Tax worked without producing any discontent or irritation.

The following Table sums up the general results :—

DIVISIONS.	Budget estimate 1860-61.	Assessment up to 30th April 1861.	Collections up to 30th April 1861.	Estimated charges up to 30th April 1861.	Net produce of the Tax in 1860-61.
Presidency	15,50,000	10,76,540	5,00,328	46,962	4,53,366
Nuddea ..	4,31,000	3,55,452	89,471	31,332	58,142
Bhaugulpore	77,000	1,85,720	1,11,437	19,530	91,907
Burdwan	4,46,181	3,43,894	1,25,160	30,054	95,112
Chittagong	1,13,024	1,22,212	50,266	13,614	36,652
Cuttack	25,000	62,617	26,119	16,746	9,373
Dacca	3,28,358	3,66,825	1,81,049	35,076	1,45,973
Patna	10,68,445	5,01,702	2,68,800	35,028	2,33,772
Rajshaye	5,38,250	3,23,175	83,166	29,910	53,226
Assam	84,514	75,714	28,288	8,160	20,128
Chota Nagpore	1,39,700	1,32,164	67,100	6,168	60,932
Arracan	48,273	48,128	8,778	5,352	3,426
Darjeeling	1,515	15,183	4,602	1,356	3,246
Total	48,54,260	35,89,230	15,14,573	2,79,318	12,65,255

Stationery.—Rs. 1,41,566 worth was imported from England and Rs. 2,15,974 purchased in India, the whole being a decrease of Rs. 81,093 on last year.

FINANCIAL.—The total revenue was £14,000,330 and the surplus of income over expenditure was £9,754,925. The indirect taxes were unusually productive. There was an increase as compared with 1859-60 :—

In Abkaree of	...	..	...	£ 34,070
In Customs of	...	..	...	£ 122,272
In Salt of	...	..	...	£ 672,310
And in Stamps of	...	..	...	£ 169,374

With regard to direct taxation the receipts are small, and amount to only £187,568. The Income Tax did not come into operation till the 1st August 1860, and the collections therefore of only two quarters fell due within the year.

Receipts.—

RECEIPTS.		1859-60.	1860-61.
CUSTOMS.	Land Revenue	£3,749,014	£3,787,064
	Sayer ..	34,738	44,766
	Abkaree	404,058	438,129
	Assessed Taxes		187,568
	Imports	1,175,175	920,711
	Duty on Salt	668,538	913,955
	Exports	212,222	313,511
	Salt	1,305,747	1,077,657
	Opium	4,311,483	4,197,176
	Stamps	305,769	476,143
	Law and Justice	86,901	85,758
	Police	10,676	10,672
	Marine	61,422	70,041
	Public Works	117,603	115,891
	Miscellaneous	194,864	432,258
Total		12,638,240	14,000,330

Expenditure.—

EXPENDITURE.	1859-60.	1860-61.
ORDINARY.		
General Department ...	345,506 0 0	308,726 0 0
Post Office ...	183,047 0 0	120,700 0 0
Assessed Taxes ...	.....	46,237 0 0
Public Instruction ...	103,846 0 0	105,142 0 0
Pensions ..	155,639 0 0	160,487 0 0
Judicial Department ...	736,061 0 0	768,628 0 0
Revenue ..	308,433 0 0	322,757 0 0
Excise ...	23,325 0 0	27,596 0 0
Stamps ...	16,846 0 0	9,492 0 0
Customs...	53,158 0 0	58,698 0 0
Salt ...	339,451 0 0	436,363 0 0
Public Works ..	423,272 0 0	473,176 0 0
Sayer ..	33 0 0	..... 0 0
Miscellaneous General ...	9,188 0 0	9,160 0 0
Opium ...	659,382 0 0	875,333 0 0
Marine ...	426,839 0 0	346,298 0 0
Total ...	3,734,026 0 0	4,668,773 0 0
EXTRAORDINARY.		
Public Works ...	110,658 0 0	105,000 0 0
Miscellaneous ...	52,728 0 0	31,472 0 0
Total ...	163,386 0 0	136,472 0 0
LOCAL FUNDS, viz. :—		
Convict Labor Fund ..	4,685 0 0	6,150 0 0
Miscellaneous ...	33,144 0 0	34,010 0 0
Total ..	37,829 0 0	40,160 0 0
Grand Total ...	3,935,241 0 0	4,245,405 0 0

If we deduct the manufacturing charges of salt and opium the absolute administrative expenditure will be reduced to £2,933,708.

EDUCATION.—At the date of the last Returns the number of pupils in Schools under Government inspection was 49,654, and the number of Schools 816, as is shown in the following Table :—

Government Institutions.	No. of Schools.		No. of Pupils.	
Colleges (General and Professional)	9		1,295	
English Schools	45		7,175	
Anglo-Vernacular Schools	7		381	
Vernacular Schools	164	225	8,952	17,808
<i>Aided Schools and others under inspection.</i>				
English (including Schools of Industrial Arts)	33		4,748	
Anglo-Vernacular	99		7,478	
Vernacular	271		11,504	
Girls' Schools	16	419	395	24,120
Indigenous Vernacular Schools under improvement in East Bengal	172	172	7,731	7,731

The figures give approximately one School to a population of 50,000, and twelve Scholars to a population of 10,000. The cost to the State is about Rupees 16 per annum for each Scholar ; and if the aggregate of the Schooling fees realized during last year be taken at two and a half lakhs, it is found that each Student on the average paid Rupees 5-0-4½ in fees towards the expense of his education. The schooling fees, which in 1856-57 were Rs. 1,78,174, next year 1,98,100, and next year 2,04,915, were in 1859-60 Rs. 231,072.

Calcutta University.—In December 1860 there were 809 candidates for entrance of whom 759 were from Bengal. Of these 399 passed, of whom 244 were from Government Institutions. Of 39 candidates for the degree of B. A. 15 passed—10 in the 2nd and 5 in the highest division. One was educated at Bishop's College, the rest at the Presidency College. Of 24 Law candidates 8 received the degree of L. L. and 8 of B. L. Of 20 candidates for the degree of L. M. and S. 14 passed. Of 10 candidates for the degree of L. C. E., 6 passed the theoretical part of the examination. In the five colleges the number of students increased from 234 to 422. The scholarships were thrown open to general competition. A Return shews in East Bengal the proportions of different classes of the population who availed themselves of School instruction :—

SCHOOLS.	Zemin- dars.	Government Servants.	Others.	Total.
Government English and Anglo-Vernacular ...	8	55	37	100
Aided English and Anglo- Vernacular ...	6	21	73	100

Rs. 978-6 were sanctioned as additional monthly expenditure under the Grant-in-aid rules. 289 institutions thus received aid; the monthly grants aggregated 8,147-2 Rupees. 1,732 officers were employed in the Educational Department exclusive of the Professional Colleges. The Secretary of State, in answer to a memorial from certain members of the department, decided that a system of succession from the lower to the higher grades should be established, and that the Officers should be stimulated to the zealous performance of their duties by the prospect of receiving such promotion; but that, although such a system is to be the general rule of the service, its operation must be subject to the condition of fitness in the candidates for promotion.

PUBLIC WORKS—Local.—There are eleven Imperial Trunk Roads existing, or under construction in Bengal, extending over a length of 1,994 miles, with Imperial Branch Roads aggregating in length 1,145 miles. All of these Roads are in a more or less completed state. The Grand Trunk Road, from Calcutta to the Kurrunuassa 392 miles, is the only one of any considerable length that is nearly completed: the Assam Trunk on the other hand being scarcely commenced. As these 3,139 miles of Road must ultimately be bridged and metalled, not more probably than one-third of the entire expenditure required to complete all these Roads had yet been incurred. The cost of a mile of metalled and bridged Road may be taken at Rupees 8,000, and the outlay of about 167 Lakhs of Rupees is required to complete even these existing Imperial Roads. This general calculation points out how slow the progress of completing these Roads must be, the limited funds available not exceeding seven to eight Lakhs of Rupees per annum. The Feeders already projected for the three lines of Railway, have the aggregate length of 6654 miles. Attention was given to the subject of forming Roads to

afford a transit communication from each place where Cotton is cultivated.

Imperial.—The sanitary state of Dinapore cantonment was improved. Measures for the general improvement of Dum-Dum were carried out. Sir Hugh Rose appointed a Committee to consider the question of enlarging the cantonment of Hazareebaugh. The limits of the Dehree cantonment were fixed. A somewhat costly scheme for securing improved drainage and for providing a water supply in Fort William was prepared, also for lighting the Fort with gas. Barracks were under construction at Dehree. Enquiries were made regarding Sanitaria. Works were ordered to be carried out on Parisnath Hill. Court houses were improved. Designs were prepared for a Church to replace St. James' Calcutta, and for Churches at Cuttack and Barrackpore. Designs for the new General Post Office and for the Telegraph Department at Calcutta were under consideration. The erection of an extensive new building for a Copper Mint in Calcutta, was commenced, and the foundations were well advanced. The most important of the new works mentioned by the Chief Engineer in his Report, is the completion of the Hidgelee Sea Dyke between the mouths of the Soobunreeka and Russoolpore Rivers. This great work, which is fifty-four miles in length, was suspended in 1857, and resumed in the past year. It will cost Rs. 4,70,490. The scheme for relieving the Damoodah River of the flood waters which its bed cannot contain and pass off to the Hooghly, by the removal of Embankments on its right bank aggregating a length of twenty miles, was carried out. The Survey of the Cuttack Rivers, on which Captain Harris had been engaged since 1855, was completed in a most able and satisfactory manner. Lieutenant Colonel Dickens was busy with a Report on the project for the irrigation of Behar. Several bridges were built and the Calcutta Circular Canal deepened. The Nuddea rivers almost defied attempts to improve them. The Photographer attached to the Chief Engineer's Department made three tours, which took him through the greater part of the Province. From 1st May 1859 to July 1860 he submitted 331 Photographs produced from 140 negatives at a cost of Rs. 2,856, including all charges for salaries, establishment, and travelling allowance, which makes the cost of each Photograph 14 Rs.

The Expenditure local and imperial was Rs. 51,03,321 by Public Works Officers; the cost of establishment was Rs. 10,57,941, or Rs. 26.15 per cent. on the outlay on works. By Civil officers Rs. 5,05,279 were expended on Imperial and Rs. 45,025 on Local works. Of Rs. 51,81,805 sanctioned imperial

expenditure Rs 51,80,040 were spent. Full details of the Local works will be found at page 439 of Vol. V. of the "Annals."

RAILWAYS.—*East Indian.*—At the close of the year 248 miles were open. During the first half of 1860 the profit realized by the Railway was at the rate of $6\frac{1}{2}$ per cent. per annum on the Capital outlay; during the second half, it was at the rate of 5 per cent. Of passengers 19,657 were of the First Class,—yielding Rs. 78,974-8-3; 69,581 of the Second Class,—yielding Rs. 1,18,128-9-2; and 4,477,962 of the Third Class,—yielding Rs. 8,44,744-1-4. The total quantity of Ordinary Merchandize carried was 24,49,585 maunds,—yielding Rs. 5,24,324. The total quantity of Coal carried was 51,87,332 maunds,—yielding Rupees 8,74,871. On the whole the gross-earnings during

1860 amounted to	...	...	Rs. 27,01,958
Working Expenses	...	...	.. 14,42,723
Profits	...	...	Rs. 12,59,235

Eastern Bengal.—The works advanced so well that the opening of the line to Kooshtee on 1st May 1862 is promised. There are to be 472 vehicles in all at first, forming as it were the primary Stock of the Railway, and the supply of this Stock has been left to the Board of Direction in London. The line beyond the Ganges is estimated to cost £12,768 per mile, and the line to Dacca £9,264 per mile, exclusive of the cost of Rolling Stock and of the Ferries at Kooshtee and on the Jumoonah.

Calcutta and South Eastern—The works are sufficiently far advanced to make it probable that an Engine may be run on the Section between Calcutta and the Piale River, sixteen and a half miles in length, in October next. The diversion of the Piale River will probably be effected in January 1862, and the Railway may be opened through to the Mutlah in the March following. The necessity for a Tram-road or rather for a City Railroad is fully established, and the Calcutta and South-Eastern Railway Company are prepared to enter on the construction of this work as a continuation of and the last link in their Railway project of connecting the Port of Calcutta with the auxiliary Port of Mutlah.

MARINE.—There were twelve cases of groundings, against sixteen in the previous year. Of these in four cases the ship was totally wrecked; in one instance dismissal of the Pilot took place. Two ships suffered some damage, the remaining six escaped uninjured. There were eight cases of collision. The num-

ber of Pilot Vessels in Commission was reduced from six to four. Changes were carried out in the Department at the recommendation of the Civil Finance Commission, by which Rs. 3,468 a month were saved. The Commission recommended the appointment of a Naval Secretary to Government and the making over to private parties of the inland Navigation lines. It was resolved to increase the Pilotage fees 25 per cent. and to allow the free list pilots 60 per cent. of the increased amount. The Lieutenant Governor proposed, however, to reduce the allowance to 50 per cent. to Licensed Pilots, *i. e.* Pilots coming from outside, and not from the Pilot Service, limiting at the same time all future accessions to the Pilot Establishment to this class. Of this, except as to remuneration, the Government of India approved.

MISCELLANEOUS.—*Emigration*.—14,533 Emigrants left for seven colonies, Mauritius, Jamaica, Trinidad, British Guiana, St. Kitts, Re-union, and Natal, all of which have agencies in Calcutta, which makes the competition keen. The total number of Emigrants to Mauritius was 6,091 souls (equal to 5,417½ statute Adults) against 17,606 souls (15,980½ Adults) in 1859-60. The mortality rates on arrival in the Colony up to date of the latest advices, averaged 4·41 per cent. on the total embarked, whilst those in the passage of the River were 0·22 per cent., the lowness of which was ascribed to the careful management adopted by the Agency at the time of embarkation. To the West Indies within the last season twenty-four ships, carrying an aggregate of 8,442 souls, or 7,662 Adults, were despatched; being an increase of 458 souls over the previous year's operations to that quarter. The death rates in the River bear a proportion of 0·46 per cent. to persons embarked, and the mortality on the voyage, as far as it has been ascertained, was estimated at 7·33 per cent. to strength embarked. The results show a comparatively decreased mortality over the previous year. 610 were sent to Natal and 3,760 to the French Colony of Re-union. A Committee was appointed to enquire into the abuses attending the system of recruitment by unscrupulous natives, and several improvements were introduced into the Agencies.

Medical.—In the Medical College Hospital 4,799 in 1860 were treated against 4,616 in 1859. The rate of mortality amongst Europeans was almost identical with that of the year 1859, *viz.*, 9·64 in 1859 and 9·70 in 1860. Amongst Natives, however, there was a very considerable improvement, the percentage of deaths to treated having been reduced from 27·61 in 1859 to 22·83 in 1860. In the Midwifery Department of the Hospital

sixty-four Native Patients and thirty-four Christian Patients were confined, making a total of ninety-eight labors in the course of the year. This was an increase on former years, the numbers having been seventy-one, ninety, seventy, and eighty-five respectively in the four preceding years. The mortality was at the rate of 15.63 per cent in Natives, and 2.94 in others. 12,705 were treated in the male Out-dispensaries and 1,334 minor operations were performed. In the Out-door Dispensary attached to the Female wards 2,666 women and 2,021 children were treated. The total number of new Patients seeking relief from the Ophthalmic Hospital during the year amounted to 3,227, showing an increase of 257 over that of the preceding year. Of this aggregate number 2,745 were Out-patients, and 482 In-door Patients. The number of the Operations on the eye during the year (exclusive of the minor ones) amounted to 153. Of these ninety-five were for cataract, eighteen for artificial pupil, and the remainder for tumours in the orbit and extirpation of the eye-ball. There were 21,608 Out-patients.

In the Blowanpore Lunatic Asylum 142 Europeans and East Indians were treated, of whom 17 were cured, 53 sent to England 5 died and 67 were under treatment. In Dullinda 449 natives were treated, of whom 112 were cured. In Patna 168 were treated, of whom 44 were cured. In Moorshedabad 87 were treated, and 33 cured. In Dacca 303 were treated, and 74 cured.

Volunteer Corps were formed in Calcutta, Howrah, Shahabad, Rajshaye and Purneah.

Indigo Disturbances :- The enquiry of the Commission lasted from the 18th May to the 4th of August 1860 during which time 134 witnesses were examined, and 4,019 answers were taken down. The result of this enquiry was submitted to Government in a very full and able Report which was reviewed by the Lieutenant Governor in a Minute. The temporary Act of 1860 for the summary enforcement of contracts for the cultivation of Indigo, ceased to be in operation on the 4th October. The following Statement will show the result of the operation of this Act up to the 31st July 1860, in Breach of Contract cases, in the several Indigo Districts where it was put into requisition. --

Particulars	Number of persons employed	Number of persons employed to give distances	Gross amount of distances supplied	Actual amount per person	Amount of distance paid by Government	Amount realised by sale	Number of persons employed in dis- patch of payment
Surat	1314	1245	6520	5.14	3125	2257.41	352
Jessore	274	157	925	3.41	622	0	1
Rashtree	1	0	0	0	0	0	0
Pales	23	0	0	0	0	0	0
Mosschedad	1	1	0	0	0	0	0
Madda	10	0	0	0	0	0	0

The fiscal effect of the operation of the Act and of the private arrangements entered into by the complainants is that the amount of the payment should be reduced for the purpose of the Act, and that most of the Planters were able to escape to a great extent from spring sowings. Some difficulties were pointed out by the Planters in sending the cutting and delivery of the top. Indigo plant, but it was covered by the excisions of the Madras Revenue authorities, and in some instances by the payment of a fine made by some of the Planters.

Towards September a Notification was issued in the excited parts of the Indigo Districts, disabusing the minds of the rural population of an erroneous impression said to have been conceived by them, that Government was opposed to the cultivation of Indigo ; and conveying an assurance to the Ryots that their position in regard to past arrangements would not be made worse than it was, and that in respect to all future arrangements, their right to free action in regard to Indigo, as in regard to all other crops, would be respected in practice. The only remedy the Committee recommended, which it was in the power of Government to apply, was a good and effective execution of the Law as it stood. Accordingly new sub-divisions were created, measures are in progress for the introduction of an improved system of Police throughout the Lower Provinces ; Courts of Small Causes under Act XLII. of 1860 have been established at the most important places in the Indigo Districts ; the efficiency of the existing Civil Courts has been much improved by the new Code of Procedure ; and, at the suggestion of Government, a system of classification of suits, and setting apart particular days of the week for the trial of cases of the description of Small Cause Court cases, has been introduced. The Lieutenant Governor submitted answers to charges contained in two memorials by the Indigo Planters' Association. The conduct of the Bengal Government was approved by the Government of India. Reports that the ryots would prevent the October sowings led Government to strengthen the Military Police in the Indigo Districts, to send two gunboats to the rivers of Nuddea and Jessore, and native infantry to these two stations. The Indigo excitement, which had been hitherto confined to the Nuddea and Rajshahye Divisions, towards the end of October manifested itself in a part of the district of Furreedpore, chiefly inhabited by the Ferazees, a sect of Mahomedans who have on previous occasions shown unity of action, and some disposition to turbulence. Timely precautions were taken by the Magistrate for the preservation of the peace, and beyond a few cases of petty assaults on Factory workmen and servants, which were brought to the notice of Government, the excitement in this district was confined to a passive refusal in some quarters to cultivate Indigo.

About this time the Planters complained of the difficulty of realising their rents, of being forcibly dispossessed of their *Nezabad* lands and of danger to their own lives and those of their servants. The difficulty as to rents was apparent and extra officials were posted to the spot. On 4th March a deputation of the Indigo Planters' Association represented these evils to the Governor General, and Messrs. Montresor and Morris were appointed

Special Commissioners to settle the rent difficulty. The reports of these officers were published. Meanwhile the Planters were assisted by a protective force, and extra courts and periods of grace were allowed to one or two of those who were zemindars for the payment of the land revenue. There were a few cases of serious outrage and even affray attended with loss of life. At the village of Shadhoochatty, in the Jenidah Sub-Division of the District of Jessore, six of the villagers were killed and wounded. But all were promptly dealt with by the authorities. The principal difficulties complained of by the Planters during the late Indigo crisis may be summed up as follows:—*first*, wilful repudiation of rents by the Ryots, and their inability to measure their lands owing to the refusal of the Ryots to attend the measurement and point out their respective holdings; *second*, forcible dispossession of their Neezabad lands by the Ryots, and the insufficiency of the summary process under Act IV. of 1854 to restore them the possession of such lands in time for the season's cultivation; *third*, wilful destruction of Indigo Crops by Cattle; and *fourth*, the commission of outrages on their servants and property by large masses of the people, in which it was difficult to obtain individual conviction.

Suitable recommendations were made by the Lieutenant-Governor for legislative action in all these matters, which, if adopted, would tend in a great measure to remove these difficulties. These recommendations are as follows:—*1st*. Provision by law for the award of penal damages in a suit for rent when the Plaintiff has been inexcusably forced into Court by unreasonable refusal or contest. *2nd*. Receipt of rent by the Collector in certain cases. *3rd*. Improvement of the process for the realization of rents under Act X. of 1859, by attachment of all the property of the Defendant at the outset at the discretion of the Judge. *4th*. Provision by law for the official measurement of lands when applied for by either Zemindar or Ryot. *5th*. Practical provision for registration of *Nij jote* lands and other lands in Ryottee tenure, so as to enable the Police in cases of dispute to give prompt possession to the party registered. *6th*. Amendment of the Cattle Trespass Act, so as to meet cases when the Cattle are not strictly *trespassing*, *i. e.*, when they are causing damage to their owner's land or crops by which damage another person having some interest in the crops is injuriously affected. *7th*. Joint village liability to fine for offences by masses.

Calcutta Botanical Gardens.—Twelve Wardian cases of plants were sent to the Gardens of Kew, Ceylon, Mauritius, Australia, and Java, each case containing an average of twenty-five plants. Several packets of seeds, the produce of the Calcutta Botanic

Gardens, were also sent to the Botanical establishments just mentioned, and to private gardens in England and India. From the surplus stock of the garden 3,455 plants were distributed to private gardens in the neighbourhood of Calcutta. English and Native vegetable seeds were also supplied for the use of the Soldiers' gardens. The contributions of plants and seeds were not so extensive as those supplied from the gardens. Dr. Anderson brought out with him a valuable collection of Cinchona seeds of the most important quinine-yielding species. They were sown on the first week of March and had germinated by 1st April. A large and very valuable collection of dried plants has been accumulating in the gardens for the last forty years. The work of preserving it from the ravages of insects, by saturating each specimen with a solution of Corrosive Sublimate, has been going on for some years, and will now soon be completed. The collections have also been all incorporated into one general Herbarium, but until the specimens are all poisoned and mounted, the Herbarium will not be available for scientific purposes. Contributions of dried plants were received during the year.

Tea and Coffee Cultivation.—In Assam 72,240 acres were appropriated to tea planting, of which 20,945 acres were actually under cultivation, being 12,521 acres in excess of the number of acres (8,424) under cultivation two years before. The out-turn of the Crops in 1858-59 was 1,380,999 lbs., while the estimate for the year under report amounted to 1,705,130 lbs., showing an increase of 324,131 lbs., or about 23½ per cent. in two years. This increase is distributed as follows, *viz.*, for Kamroop 235 per cent., Durrung 160 per cent., Nowgong 6 per cent., Seeksagur 15 per cent., and Luckimpore 32 per cent. The increase in the Kamroop District exhibits the gratifying result of our having a first-rate Tea-growing District in Assam, possessing the great desideratum of an abundant supply of labor, and the not trifling advantage of being only two-thirds of the distance of Debrooghur and Seeksagur from Calcutta, which, against the swift current of the Berhampooter, is equivalent to the saving of a month's journey by boat, or seven days by such Steamers as now ply on the river. The cost of production of a maund of Tea in Kamroop is stated by the Commissioner of Assam to be about 50 per cent. below that in Seeksagur and Debrooghur, while from the reports of the London Brokers it is assumed that the Kamroop Tea is, at the least, equal to any other Tea produced in Assam.

In Cachar the Tea plant was discovered growing wild in 1855 when its cultivation was taken up by several enterprising persons, among whom were Mr. Williamson and Dr. Barry. Since then the cultivation has steadily increased, and every year has

seen large additions made to the Grants, which are now fifty in number, and each of considerable area. The total area under lease for cultivation is probably not less than 100,000 acres, though 68,149 seem only to have been applied for. Of this, however, only 5,957 acres have been as yet put under cultivation, owing to several of the Concerns having but just started. The quantity of Tea produced up to the present time is 128,112 lbs. The Crop of the present year amounts to 197,830 lbs., and the estimated Crop for the next to 382,360 lbs. leaving a broad margin for contingencies. Every pound of Cachar Tea sells at an average of 2 Shillings, or 1 Rupee. The expenses of the cultivation are said to be very great, and at the same time very uncertain. One acre of land under good management will yield about four maunds, or 320 lbs. of Tea, on a gross return of 320 Rupees; and estimating the expenses of all kinds at a little above half that amount, the net profit per acre will be about £15.

In Darjeeling the first trial of the Tea plant was made in 1841, with a few seeds grown in Kumaon from China stock. The original plants have now assumed a gigantic size, one of them being fifty feet in circumference, and twenty feet high. Nevertheless the elevation of the Darjeeling Station (7,000 feet,) seems to be too great for profitable planting. The frost kills the seedlings, and there is not a sufficiently rapid succession of leaf in the warm season to make the manufacture pay. At 7,500 feet the Plantation does not thrive at all. The elevations best suited for Tea are from 4,500 feet down to 2,000 feet; and for Coffee from 3,000 to 1,200 feet. It was not till 1856 that the first Plantation was started at Kursiong, and another at Darjeeling, by Captain Samler, who was also the first to grow Coffee. The success in both cases appears to have been complete. The yield of Tea to Captain Samler's Company this year will be about 20,000 lbs., and the yield of Coffee about the same. The following shews the details:—

	Extent of the Grants in Acres.	Area now under Cul- tivation.	Out-turn of Crop for the year.	Number of Laborers, employed.
Assam	74,240	20,945	lbs. 1,705,130	12,390
Cachar	68,149	5,957	197,880	5,327
Darjeeling	21,865	3,251	62,600	2,834
	164,254	30,153	1,965,610	20,551

The Iron Works near Sooree in Beerbhoom manufactured, on the English principle, the first pig iron Bengal has seen, in 1856, and it found a ready sale at 2 Rs. per maund. The quality, however, of the pig iron is stated by the professional officers of Government who examined the works, to surpass English pig iron; and if more of it were obtained and sold at the price of imported English pig iron, a considerable profit would be realized.

POLITICAL.—Towards the close of last year the *Sikhim* authorities made constant raids into our territories and carried off or killed our subjects. The Dewan Namgay, who seized Drs. Campbell and Hooker in 1850, was the real author of the aggression, the Rajah being an old man of 80 and in Thibet. After six months negotiations reparation was refused and Dr. Campbell, the Superintendent of Darjeeling, took possession of the portion of Sikhim lying to the west of the Great Runjeet and to the North of the Rumman River, the western boundary of which is the Singalelah Range, and the northern the Snowy Range. On 1st November 1860, he had only 160 natives and a complement of English and non-commissioned officers, and was forced to retreat for lack of ammunition. Immediately we despatched 300 military police and 400 Europeans to his assistance. Finally Colonel Gawler of H. M.'s 73rd, at the head of a force of 2,600 men, with the Hon'ble A. Eden as Envoy and Special Commis-

sioner, started for Darjeeling on 1st February 1861 and reached Tumloong, the Sikhim capital on 1st March. The Dewan fled, we dismantled the forts, the old Rajah abdicated in favour of his son and on 26th March Mr. Eden effected a treaty with the new Rajah. It stipulated that full compensation should be made to those of our subjects who had either been kidnapped or plundered by the Rajah's people; it provided for full indemnification for public losses sustained in Dr. Campbell's retreat; it guaranteed the opening out of the country to trade, and the removal of all restrictions on travellers and merchants; it fixed the maximum rate of transit duties to be levied on goods between British India and Thibet; it provided for the construction of roads, and the security of those who traverse them; and lastly, it contained a provision for the banishment of the Dewan Namgay, and for the future good conduct of the Sikhim Government.

The Kookies were punished for their raids into our territories last year. Early in January 1861 a force of 1,250 military police under Captain Raban started from Chittagong, penetrated into the Kookie country, carried the stockade of Rutton Pöa, the ringleader, and retired. We surveyed the country. The Kookies, however, invaded the territories of the Rajah of Independent Tipperah, and subsequently made a less serious incursion into our own hill country lying to the South-East of the Kurnaföolee River, beyond our outposts, but under the protection of the Poang Rajah. One party was, however, intercepted and dispersed with loss, and another was partly cut up. For the future security of the eastern frontier, in addition to the frontier posts which had already been established with marked success within our own territory, the Civil Police were supplied with fire-arms, and endeavors are being made to train the villagers to habits of self-defence. The Superintendent has been instructed to keep a vigilant watch upon the trade of the hills, and to exclude from the markets of the plains all tribes which display a spirit of opposition to his authority. Such exclusion will be severely felt, for these markets are the chief outlet for the productions of the hills, where the savages barter their hill cotton and coarse cloth for rice, salt, hard-ware, gun-powder, and matchlocks. The Poang Rajah was compelled, as required by his agreement, to keep up his chain of frontier posts in an efficient state of defence; and an officer was despatched to the durbar of the Rajah of Independent Tipperah, to insist upon similar measures being adopted along the Tipperah frontier.

The Garrows inhabit the hills which divide Assam from Bengal proper. On account of their repeated raids, two small forces, consisting of military police, were assembled, the

one to penetrate into the hills from Assam, the other from My-mensing. Lieutenant Chambers commanded the former party, Captain Morton the latter. Both expeditions were attended with satisfactory results. Lieutenant Chambers remained for a month in the hills, from the 14th January to the 15th February, during which time he succeeded in punishing almost all the offending villages. So salutary was the dread produced by this Military display, that not only did the dependent Chiefs hasten to pay up the arrears of revenue which they had for a long time withheld, but independent Chiefs voluntarily came forward and tendered their submission. The villages of the recusant Chiefs were burnt and the crops destroyed. Captain Morton's expedition was equally successful.

Melay Singh was elected *Rajah of Moleem*, his predecessor Hazar Singh having oppressed his subjects. On the death of Singh Manick, *Rajah of Khyrim*, his grand-nephew, Rabbon Singh, was elected by the Chiefs and Elders of the country to succeed him; and this election was confirmed by Government on Rabbon Singh subscribing to the Nungklow Rules.

The Cossyakh and Jynteah Hills.—The people who revolted last year were treated with clemency, and Captain Rowlatt prepared a scheme to improve the administration of the country

ADMINISTRATION OF THE PUNJAB.

1860-61.

Civil Justice.—The limitation in 1856 of the period within which actions for unbonded debts can be brought, to 6 years, was in 1859 reduced to 3 years. Regular accounts were in all cases insisted upon, together with a registration of bonds for sums exceeding 50 Rupees. The result of this was that in 1860-61 there was a decrease of 50 per cent. in the number of suits between Bankers, Traders and Agriculturists, or from 53,478 to 26,512. A similar decrease is visible in suits for debt of all kinds, which fell from 1,07,414 to 56,865. In some classes of suits, as those founded on the law of pre-emption, and those connected with marriage and betrothal, there was an increase; but the total number of cases instituted diminished from 1,38,878 to 83,231. Including arrears of the previous year, 1,01,096 cases, representing a value of fifty-seven lakhs, were disposed of. In addition to the work performed on the Civil side, about 50,000 suits for rights connected with land were disposed of in the Revenue De-

partment. Owing to the heavy work remaining at the end of 1859-60, the average duration of cases was unusually long, and extended to 33 days. In 1860 appeals rose from 4,960 to 6,544, but a portion of these was from judgments given in 1859-60. Decisions were reversed or modified in the proportion of 16 per cent.; but the proportion remanded for further investigation was 21 per cent.

Criminal Justice.—There was a total of 24,954 heinous offences in 1860 as compared with 23,692 in 1859, and 22,502 minor offences in 1860 as compared with 23,226 in 1859. The total number shews an increase in 1860 of 538. The increase of crime is attributed in some cases to dearth of food in the Delhi, Hissar and Cis-Sutlej divisions, and to leniency of punishment in the Mooltan division. In the Umritsur, Derajat and Peshawur divisions heinous crimes much diminished in number. The crime most on the increase was simple theft. Murders diminished in number while Dacoity and Thuggee were of rare occurrence. Adultery greatly decreased, the punishment of flogging having been found efficacious. Of the criminal cases reported 74 per cent. were brought to trial, 75 per cent. of the persons brought to trial were convicted and 27 per cent. of the value of the property stolen was recovered. During the year 26 persons were punished with death (to 56 in 1859), 90 with transportation for life; 27 from 12 to 14 years' imprisonment; 8,876 with shorter terms; 8,219 with flogging; and 38,132 with fine. The system of inflicting combined punishments in lieu of prolonged imprisonment was enforced. Flogging led to the abolition of four district jails and an annual saving to the State of Rs. 15,556. The most striking measure of the year was the investiture of some of the principal subject Chiefs and Jagheerdars with criminal jurisdiction. Altogether twenty-seven Chiefs were selected, of whom fourteen belong to the Cis-Sutlej States. The Jagheerdars of the plains can inflict fine up to two hundred Rupees, and imprisonment not exceeding six months. The Rajahs of Seeba and Nadown, whose domination in the Himalayan country is of great antiquity, were also empowered to award corporal punishment, to appoint their own Police, to have their own Jails, and to appropriate fines. Honorary European Magistrates, selected from the independent community, were appointed at Simla and Lahore.

Police.—A great reform was initiated in this department and a fusion of the military and civil police effected—the entire force being placed under the orders of an Inspector General who is in direct communication with the Local Government. Subordinate to him are four Deputy Inspectors General, whose control extends over all the Police stationed in a territorial division.

prising two or more Revenue Divisions. Under these again are the Superintendents, one for each District, assisted by an Uncovenanted Officer. The subordinate grades are designated Inspectors, Deputy Inspectors, Sergeants, and Constables. The total cost of the new Constabulary, exclusive of the Derajat and Peshawar Divisions, is estimated to amount to twenty-two lakhs, of which the cost of European superintendence is at present Rupees 3,60,000. In the year 1860-61 the cost of the two bodies was as follows:

Military police	...	Rs. 26,54,002
Civil police	...	9,45,669

Total Rs.		35,99,671

Jails.—The number of admissions was 23,187, of which 7,295 were released on acquittal or appeal and 1,790 on payment of fine or flogging. 16,048 persons were sentenced to various terms of imprisonment, and 36,034 to other penalties not necessarily involving imprisonment. The remarkable healthiness of 1859 continued except in the Jail at Peshawar. The gross expenditure on account of Jail was Rs. 4,48,043 less Rs. 1,69,902 realized by the labor of convict. The progress in instruction is seen by the following figure:

Able to read and write in 1870	206
Do do do in 1860	600

Excess	394

Able to read only in 1870	3,494
Do do do in 1860	3,800

Excess	306

Revenue of the Government of the Punjab

Year	Percentage of Revenue				Percentage on the	
	Demand	Collections	Balance	In hand or under	Contract	Of Collections
1859-60	1,948,774	1,910,892	38,882	30,695	1,50,142	1,50,142.97
1860-61	1,92,938	1,80,527	12,411	60,773	1,67,915	1,64,845.93
						5 8 6 10 4

The Collections for 1860-61 are thus divided —

Land Tax	Rs. 1,50,000
Government of the Punjab	44,460
Government of the Punjab	5,121.98

The difference between the demand of the two years amounts to Rupees 1,93,824. This is more than accounted for by the alienation by sale to the Chiefs of the Cis-Sutlej States of a portion of the Jhujjur District, the Land Revenue of which amounted to Rupees 2,07,105. Excluding the nominal balances, a real deficit of nearly 11 lakhs is shewn, which accrued owing to the failure of the periodical rains and the consequent entire miscarriage in unirrigated tracts of the autumnal harvest. The drought was most felt in the Delhi territory and the Cis-Sutlej States bordering thereon. The following shows how the revenue of the several Districts was affected :—

Districts.					Amount of Balances.	Percentage on total Revenue.		
					Rs	Rs. A. P.		
Delhi	...	...	...	...	63,066	16	4	0
Goorgaon	...	...	...	...	2,76,092	23	2	3
Kurnal	...	...	...	...	37,067	4	9	11
Hissar	...	...	...	...	1,05,103	23	7	5
Rohtuck	...	...	...	...	2,74,544	28	9	8
Sirsa	...	...	...	...	85,182	45	4	6
Umballah	...	...	...	...	88,002	19	7	1
Thunnesur	...	...	...	...	1,44,545	36	14	5
					10,73,601	22	5	4

In the remaining Divisions North and West of the Sutlej the revenue due for 1860-61 was fully realized.

Divisions.					Percentage of Revenue realized.		
					Rs.	As.	P.
Trans-Sutlej States	...	...	...	...	99	7	6
Unritsur	...	...	...	...	99	12	0
Lahore	...	...	...	...	98	13	3
Rawul Pindee	...	...	...	...	99	5	4
Mooltan	...	...	...	...	97	4	11
Derajat	...	...	...	...	96	15	0
Peshawur...	...	...	...	...	98	6	5

The whole of the Delhi territory and the country between the Jumna and the Sutlej suffered from want of rain. The great Nujjufghur Jheel became entirely dry; and scanty harvests were the consequence. Numerous deaths from starvation took

place—but no record of them was preserved. The periodical rains, however, of 1861 set in most favorably. There was a decrease of Rs. 82,484 in the yield of the excise on liquors and of Rs. 10,596 on drugs; while in reference to customs and salt there was an increase of revenue of no less than Rupees 12,48,205, and in regard to canal revenue, owing to the drought, there was an increase of Rs. 2,23,135.

The demand on account of Income Tax amounted only to Rs. 3,99,674 for 6 months in the following proportions.

	Rupees
Delhi	57,403
Hissar	22,525
Cis-Sutlej States	41,188
Trans-Sutlej States	30,471
Lahore	28,047
Umritsur	1,19,802
Rawul Pindee	32,145
Mooltan	28,179
Derajat	24,928
Peshawur	14,896

The revenue arising from Law Stamps was much in excess of 1858-59 though less than that of 1859-60. The gross collections were—Excise on liquors Rs. 4,18,656; Excise on drugs Rs. 2,38,751; Customs and Salt Rs. 62,04,374; Canal Revenue Rs. 7,12,574, Stamps Rs. 6,51,046. The increase from all sources was Rs. 3,19,922, the total revenue in 1859-60 being £2,888,568 and in 1860-61 £2,920,560.

Education.—The Tehsilce schools fell from 140 in 1859-60 to 123 in 1860-61. The 10,353 scholars were reduced to 6,437 and the average daily attendance was 4,564 instead of 7,636. The village schools were also reduced from 1704 to 1686; the number of scholars fell from 37,000 to 32,165, and the daily attendance from 30,000 to 26,867. The Normal Schools are eight in number, and are placed at Delhi, Umballah, Jullundur, Lahore, Mooltan, Rawul Pindee, Dehra Ismael Khan, and Peshawur. The number of teachers receiving instruction increased during the year from 325 to 431, and the daily attendance from 292 to 352. Of the teachers, 334 were Mahomedans and only 111 Hindoos; altogether 273 received certificates of proficiency. In accordance with the scheme initiated in 1859-60, the number of *superior* Zillah Schools was raised from 6 to 20; and the number of *inferior* reduced from 6 to 3. The number of scholars at the close of the year was 2,309, and the average daily attendance throughout the twelvemonth 2,018. The sum granted by the State was not more than £15,000. The total population of the 10 Commissionerships of the Punjab provinces is 14,794,611 souls. If it be assumed that one-eighth is formed of children of a School-going

age then at the cheapest rate of education, or rupees 4-8-0 per head, a sum of Rupees 83,21,967 is required for the general diffusion of the most elementary learning. Copies of the Holy Scriptures in English, the Vernacular, and Romanized Oordoo were placed in the Libraries of all Government Schools; and to pupils desiring it, instruction may be given in the Bible out of school hours by Christian teachers, whether Native or English. A Medical College was opened at Lahore which contains at present 5 European and from 40 to 50 native students.

Public Works.—The total expenditure was Rs. 45,51,985.

Agricultural.—The whole projected length of the Baree Doab Canal, main line and branches, is 477 miles. The portions in progress during the past official year were

Main Channel	...	...	140	miles.
Lahore Branch	...	...	62	"
Kussoor Branch	...	...	30	"
Subraon Branch	...	...	30	"
Escapes and miscellaneous Channels	...	...	25	"

Total ... 287 miles.

The total excavations made, were 1,066 millions of cubic feet, leaving only 70 millions to be effected. The total amount expended on the canal during the past year was

Original Works	...	...	Rs. 6,16,311
Repairs	...	...	1,12,438
Establishments and Contingencies	...	...	2,19,529

Total Rupees ... 9,48,278

The total cost from commencement of the work to the close of the past year was Rs. 1,06,27,276 including expenditure on the Hulsee Canal.

The past year was the first year of Revenue from the Baree Doab Canal. The following figures represent the principal facts under this head :—

Area irrigated	...	...	Kunals* 8 68,842
Total value of crops	...	...	Rupees 25,35,945
Total income	...	...	" 2,26,876

The total expenditure under the Director of Canals in the Punjab during the year was

New Works	...	...	Rupees 6,63,518
Repairs	...	...	" 1,68,620
Establishment and Contingencies	...	...	" 3,09,459

Total Rupees ... 11,41,597

The area irrigated from the Western Jumna Canals largely increased during the year.

Communications.—There were no new works of impor-

* Acres 90,505.

tance on that portion of the Grand Trunk Road which stretches from Delhi to the Sutlej, except those connected with the large Hill torrents near Umballah. A bridge was thrown over the Sursotee at a cost of Rupees 17,998. From Loodiana on the Sutlej the road is continued in two branches to Lahore, one *viâ* Ferozepore the other *viâ* Jullundur. That portion which is included between Jullundur and Lahore was completed during the year; that from Ferozepore to Lahore will be so shortly. On the Lahore and Peshawur road great progress was made.

The Indus tunnel at Attock was a good deal impeded on the west side, and latterly altogether suspended. The total outlay during the year under this head was

Mettalled Roads (with Bridges and Causeways)	...	...	Rupees	11,20,700
Unmettalled Roads with Bridges			"	64,905
Accommodation for Travellers			"	9,996
Total Rupees				11,95,601

The Railways—from Umritsur to Lahore (32 miles) and from Lahore to Mooltan (218 miles) were rapidly approaching completion. The total expenditure on railways in the Punjab during the year was Rupees 12,38,128. The total from the beginning has been Rupees 24,15,838.

The total cost of miscellaneous works executed by civil officers from local funds was Rupees 3,12,260.

The total expenditure on works undertaken to relieve the starving poor in the Districts in which Famine prevailed was Rs. 1,19,992

Post Office.—In 1860-61 the total number of covers delivered was 5,72,057—total number undelivered 45,526; grand total 6,17,583 being an increase of nearly 12 per cent. upon 5,50,319 the total number carried the year before.

The dearth affected the returns of the Indus traffic—the total number of boats employed having been 2,945 with an aggregate tonnage of 39,708 tons thus showing a decrease from the previous year of 861 boats and of 13,335 tons.

Finance.—The total realization of ordinary revenue for the two years was as follows:—

1859-60	...	...	Rupees	2,95,70,583
1860-61	...	...	"	3,00,67,740
Increase Rupees				4,97,157

The receipts from local funds declined Rupees 17,83,594.

The total disbursements were

1859-60	Rupees	1,76,96,410
1860-61	"	2,03,16,775

Increase Rupees	18,47,287
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which was owing to the heavy expenditure on Public Works.

Political.—Towards the end of August a Tartar nobleman, the *Kurawal Begee* of the ruler of Kokan, visited the Lieutenant Governor at Murree, to announce the accession of his Highness to the throne of Kokan in deposition of his younger brother. The country of Kokan is one of importance, with a soil fertile and easily irrigated. Trade is carried on with the Chinese settlements of Khoter and Yarkund and with the Russian settlements on the North. Its revenues derived from customs, land revenue, sheep, horses, &c. amount to 3,00,000 *tillas* which is equivalent to 21 lakhs of Rupees.

In *Bokhara* the only important incidents were the exchange of embassies between this State and Cabul, and the death of the Ameer Nasir-ool-la-Khan, who was succeeded by his son Syud Meer Moozuffier Shah on the 20th October. The new Ruler is reported to be unsuccessful in his Government.

In reference to the *Affghan* conquered provinces of Balkh and Koondooz, the former is said to have advanced in prosperity since 1850. Koondooz in 1859 was occupied by Mahommed Afzul Khan to whom the people and the surrounding chiefs are disaffected. Sooltan Ahmed, a recognised vassal of Persia and nephew of the Ameer Dost Mahommed, is aiming at the supremacy and is preparing to play an important part in the politics of Central Asia. He has had however to cope with rebellion in his own country on the Upper River Moorgab. With Dost Mahommed Khan our relations continued satisfactory. He abstained from interfering in favor of the Mahsood Wuzerees.

During the year that elapsed since the return of Brigadier General Chamberlain's expedition against the *Mahsood Wuzerees*, the tribe did not make submission, and the embargo on their trade was consequently maintained. They lost no opportunity of making plundering raids into our country, encouraged by a delusive hope of assistance from the Ameer of Cabul, and the easy supplies of grain from the Affghan valleys of Dour and Khort.

In September the *Kohat* pass, a defile connecting Peshawur and Kohat but not British territory, was closed for a few days. The Afreedee inhabitants receive an allowance from our Government, and in return agree to become responsible for all crimes committed within the limits of their villages. They generally

satisfy justice by making restitution, but recently in consequence of the increase of offences the British authorities have closed the Pass, and the principal men of the offending party were reduced to come and sue for pardon, make restitution, pay a fine and promise obedience. The savage audacity of this tribe is gradually but surely being trained to peace and order. In the Kohat District, as on the frontier generally, the people are all of one religion—they are bigoted Mahommedans without any admixture of Hindoos. The Pindiali Mohmunds, who occupy the hills to the left of the river Swât, have been obstinately hostile to our power. Their chief, however, Nuwab Khan, who under the Sikh rule held a Jagheer in our territory worth 800 Rupees a year, at last voluntarily made his submission.

The *Maharajah of Cashmere* was chiefly occupied with the acquisition and administration of Ghilgit and Yasseen. The completion of the railways will force on the Government the development of trade with Central Asia.

Leh, the capital of Ladakh, is the great entrepôt of the Indian and Chinese trade. The following is the valuation of the imports and exports :—

<i>Imports.</i>				<i>Value.</i>
From the Chinese Territory	...	...	...	£20,785
Ditto Indian Ditto	...	...	...	£22,020
Total	...	...	...	£48,785
<i>Exports.</i>				
To the Indian Territories	...	...	...	£23,800
Ditto Chinese Ditto	...	...	...	£21,600
Total	...	...	...	£45,400

Yarkund, distant from Leh 364½ miles, had in 1852 a population of nearly 90,000, and a Chinese garrison of 5,000 men. Silks and porcelains are displayed in the Bazaars, which are 3½ miles long. There are routes for trade from Ladakh to Peshawur by land, and to Mooltan by water.

Military.—The attention of the Local Government was directed to reduction in fighting men and camp-followers of the Punjab Irregular Force, the re-constitution of the organized Police, the repression of raids on the Derajat frontier, and the maintenance of a strict blockade of the Muhsood Wuzeeree tribe, who were punished last year by an expeditionary force under the command of Brigadier General Chamberlain, C. B. The Wuzeerees are divided into three great branches, *viz.*, Ahmedzye, Ootmanzye, and Muhsood; named after the three sons of Wuzeer, the first parent and founder of the tribe, and from

whom it takes its name. From these three great branches spring numerous smaller ones. The reputed number of fighting men that each branch can bring into the field is—

Ahmedzye	...	...	10,000 fighting men.
Ootmanzye	...	...	14,000 "
Muhsood	...	...	12,000 "

but of the two first branches not more than one-third, and of the last one-fourth, are armed with guns, the remainder carrying a sword and shield, to which many add a pistol and dagger. Prior to the annexation of the Punjab, some clans of the Ootmanzye and Ahmedzye had wrested certain lands and possessed themselves of certain privileges within the Kohat and Bunnoo districts, whereby, on annexation, they were necessarily brought into direct contact with the British Government and its laws. The Muhsoods had not acquired any such privileges, and consequently came not in any manner under direct control. The whole tribe are thieves, and, unless paid black-mail, systematically make raids upon their neighbours. On their becoming our neighbours, every endeavour was made to conciliate them, but from the very commencement some clans of the Ahmedzye and Ootmanzye, and the whole Muhsood branch, exhibited the most hostile spirit and committed constant aggressions. No traveller or caravan was safe within miles of the border, except under strong escort. The Salt Mine, in the neighbourhood of Bahadoor Khail had to be protected by a fort and strong garrison. The Sandak Pass, through which runs the main road between Kohat and Bunnoo, could not be traversed with safety, until the heights were crowned. A line of forts had to be erected along the Bunnoo and Dohla Ishmaul Khail borders, to check marauds, and every road within reach of the Hills to be guarded and patrolled. In 1852 Major John Nicholson undertook against the Omerzye clan of the Ahmedzye branch, who reside in the Hills to the North-East of Bunnoo, and had made themselves unusually obnoxious. The expedition was successful, and from that time the Omerzyes became changed. In 1855, 1856 and in the month of December last, the Cabool Khail clan of the Ootmanzye branch were by successive efforts on our part convinced of their inability to resist our arms. The Muhsoods are pre-eminent for living by plunder and violence, and have committed a series of outrages in consequence of which the Governor General ordered that a force should enter their mountains, and there exact satisfaction for the past and security for the future. General Chamberlain therefore advanced and took possession of Chandola, and then leaving Lieutenant Colonel Lumsden in com-

mand of a detachment at Paloseen, four miles from Chandola, pushed on to Shahoon and then to Burrund whence he proceeded to destroy the fort and village of Jungee Khan the principal chief of the whole Muhsood tribe. Meanwhile Lieutenant Colonel Lumsden repulsed an attack by 3,000 men on his camp at Paloseen. Makeem was destroyed. These defeats resulted in the submission of the Muhsoods to the terms offered them by the Commissioner of the Derajat, the main provision of which is, that each of the three principal divisions of the tribe shall be responsible for outrages committed by its members in our territory. The Lieutenant Governor is, therefore, able to close the narrative of the events of 1860-61 with the announcement that, with the exception of one minor unadjusted dispute, our relations with the numerous independent tribes of the Frontier are peaceful.

In the Irregular force a decrease of 480 fighting men and 279 camp-followers was carried out, at an approximate annual saving of Rupees 1,16,032. The organised Police force was reduced with a total saving of Rs. 3,11,520 per annum, viz. Infantry Police, 867 fighting men and 24 non-combatants; saving Rupees 61,920 per annum. Mounted Police, 760 fighting men and 6 non-combatants, saving Rupees 2,49,600 per annum. The frontier station of Asnee was abandoned on account of its unhealthiness.

Miscellaneous.—The average fall of rain throughout the Province is reported to have been 33.8 inches in 1860-61 to 57.2 inches in 1859-60. The dearth of food caused by the famine will be seen from the following Price Current of best Wheat, taken on the 1st of January of the years specified:—

DISTRICTS	1859-60			1860-61.		
	M	S.	C.	M.	S.	C.
Dellh	0	24	0	0	8	0
Lahore	0	39	8	0	14	0
Peshawur	0	35	12	0	29	5

The Agent of the Belfast Flax Company sowed an area, in Sealkote, of 1,070 acres with flax.

The interest which attaches at present to the cultivation of Cotton in the Punjab, will justify the insertion of the following return. —

Statement of Cotton cultivation in the several Divisions of the Punjab and its dependencies.

Division.	Cotton area in acres.	Estimated ag- gregate out-turn in maunds.	Estimated value, Rupees.	Quantity exported maunds.
Delhi	24,211	28,672	2,75,331	24,198
Hissar	40,819	76,208	5,22,275	32,776
Cis-Sutlej States	50,707	58,195	4,55,958	None.
Trans-Sutlej States	47,795	87,339	8,68,658	3,500
Umritsur	73,324	87,945	9,37,366	29,012
Lahore	42,230	36,552	3,75,604	10,292
Rawul Pindee	72,747	56,015	6,05,214	12,548
Mooltan	56,350	62,267	7,77,505	17,179
Derajat	39,400	34,465	4,48,110	36,700
Peshawur	19,930	13,812	1,98,866	1,775
Total ..	4,67,513	5,41,460	54,64,887	1,67,975

The cultivation of Indigo in the Dehra Ghazee Khan District increased so much, that the manufacturing apparatus was found insufficient for the quantity. The manufactured article is exported to Afghanistan. The revenue survey of the Derajat was concluded by Captain H. C. Johnstone. The operations were confined to the Pergunnahs of Dehra Ishmael Khan, Kolachee, part of Lukhee, and Tank. The area surveyed covers 4,737 square miles, and the cost amounted to Rupees 10-7-2 per square mile. The yield of Tea in the Government plantation was less than in the previous year, being :—

1860	29,312lbs.
1861	26,532 „

The distribution of seed was gratuitous :—

	Seed.	Plants.
To Europeans ... Mds.	452	29,000
To Natives ... „	406	2,000

Dispensaries.—13,123 in-door and 1,64,408 out-door patients were treated.

Population.—No fresh census of the population was made, but territorial changes led to a revision of returns made in 1855-56 with the following results :—

Division.	Area.	Population.	Land Revenue.	Population per Square Mile.
Delhi	4,057	13,28,650	Rs. 23,51,300	327·49
Hissar	8,546	8,58,021	15,95,875	100·40
Cis-Sutlej States*	5,244	17,61,377	15,69,598	341·18
Trans-Sutlej States	6,741	22,50,941	32,92,016	333·91
Umritsur	5,049	23,13,628	27,77,698	446·35
Lahore	8,989	15,58,715	13,27,448	172·29
Mooltan	19,350	12,30,632	15,37,024	63·59
Rawul Pindiee ...	18,066	16,91,409	21,83,388	93·62
Derajat	16,776	9,10,696	11,30,465	54·19
Peshawur	7,588	8,62,756	8,86,812	113·40
Total ...	1,00,406	1,47,66,825	1,86,51,624	147·07

Estimates were also made for the Native States connected with the Punjab Government, of which the following is the total result :—

Area 93,907 Square Miles.
Population 71,54,538

* Exclusive of Simla, the exact area of which district is not known.

ADMINISTRATION OF BOMBAY.

1860-61.

JUDICIAL.—*Civil Justice*.—The results are summed up in the following table :—

	For Adjudication during the year.				Decided on Merits.				Arrears.			
	1859.	1860.	Increase.	Decrease.	1859.	1860.	Increase.	Decrease.	1859.	1860.	Increase.	Decrease.
ORIGINAL SUITS.												
Civil Courts	1,72,679	1,36,660	...	36,019	90,720	85,174	...	5,546	45,362	21,768	...	23,594
Agency Courts	760	564	...	196	410	232	...	158	187	180	...	7
Revenue Courts	2,534	2,533	..	1	1,220	1,374	154	...	673	458	...	215
	1,75,973	1,39,757	...	36,216	92,350	86,800	154	5,704	46,222	22,406	...	23,816
APPEALS.												
Civil Courts ...	7,312	5,864	...	1,448	4,514	3,369	...	1,145	1,921	2,041	117	...
Agency Courts	21	17	...	4	11	12	1	...	7	4	...	8
Revenue Courts	402	455	53	...	167	135	..	32	201	231	80	...
	7,735	6,336	53	1,452	4,692	3,516	1	1,177	2,132	2,276	147	3

There was thus a decrease in the number of suits disposed of as well as in those filed, in both the original and appellate Courts. The average duration of suits also, as exhibited in the following table, was longer in 1860 than in 1859:—

	1859.			1860.		
	Years.	Months.	Days.	Years.	Months.	Days.
Sudder Dewanee Adawlut	5	27	...	7	29
District and City Judges	6	27	...	7	6
Subordinate and Additional Judges	1	8	3	...	12
Assistant Judges	6	10	...	11	2
Principal Sudder Ameens	3	24	...	4	9
Sudder Ameens	3	12	...	3	5
Moonsiffs	2	19	...	2	24

In *Sind* the contrast is most favourable. There were 12,065 suits filed during the year, of which 11,722 were decided, leaving an arrear of 343 against 340 of the preceding year. There were thus 1,959 more suits filed in 1860 than in 1859, and 906 more decisions. The state of the appellate file is equally satisfactory. There were 386 cases in 1859 and 515 in 1860; 236 were decided in 1859 and 364 in 1860; 150 remained in 1859 and 151 in 1860.

Criminal Justice.—The returns exhibit an increase in the aggregate number of offenders apprehended and brought to trial during the year. There is an increase also in the convictions, whilst the acquittals are less than in the preceding year. The following comparative table gives the number of prisoners apprehended and brought to trial, and the manner in which the charges against them were disposed of:—

	Offenders apprehended and brought to trial.	Convicted, And sentenced to					Acquitted.	Confined as Insane.	Died before trial.	Total.	Grand Total.
		Flog- ging, Fine, &c.	Impri- sonment.	Trans- porta- tion.	Total.						
					Death.						
1859	30,529	5,812	24	24	36,389	12,776	..	..	12,776	49,165
1860	32,058	5,829	53	2	37,968	12,099	1	..	12,100	50,068
Increase	..	1,529	17	29	4	1,579	..	1	..	..	903
Decrease	677	..	..	676	..

In *Sind* there were 11,023 convictions and 6,217 acquittals or a total of 17,240, against 12,951 convictions and 7,061 acquittals, or a total of 20,012 in 1859. There was a general decrease of crime throughout the province, although there was a serious increase in cases of murder.

In the *Island of Bombay* the returns of crime contrasted with those for the previous year, are not very favourable. There is an increase of 864 in the number of offences, and of 1,591 in the number of prisoners. This increase is made up chiefly in the number of offences against the Person, Fencible Entry, Petty Robberies, Forgery, False Coinage, Drunkenness, and breach of the Conservancy Act.

Small Cause Court.—The result is most satisfactory. The subjoined statement shows a marked increase in the number of Suits instituted, and in the amount of receipts on account of Fees, &c. during the year :—

YEAR.	No. of Suits instituted.	Amount carried to the credit of Government.		
		Rs.	A.	P.
1860 61	17,673	1,15,061	8	10
1859 60	15,939	1,05,718	3	6
Increase ...	1,734	9,343	5	4

The expenses of the Court during the year amounted to Rs. 82,230-12-7, and the receipts to Rs. 1,15,061-8-10, leaving a clear surplus of Rs. 32,830-12-3 to the credit of the Reserve Fund of the Court, which now amounts to Rs. 1,29,116-10-2.

Police.—The remarks apply to both Bombay and Sind. The appointment of Commissioner was abolished, and the control of the Police vested in the two Revenue Commissioners, each exercising within his range the same degree of supervision that the former Commissioner possessed. This arrangement was permanently adopted in January 1861. It was attended with most satisfactory results, and a saving of expenditure. In the executive branch of the Police the principle was adopted of holding Superintendents of Police personally responsible for evil practices on the part of the men under them. Sattara was placed under the control of the Revenue Commissioner, Southern Division, in respect of all Police arrangements. Considerable reductions were made on all sides. The Nassick "Coolie" Corps, the "2nd Khandeish Bheel" Corps, the "Guzerat Provincial" Corps, the Extra Levies (chargeable to the British Government) of the Kolapore and Sawunt Warree Local Corps, and the remains of the Kutch Legion and Hussun Khan's Levies at Ahmedabad, all of which were organized during the rebellion, were disbanded. The strength of the ordinary Police Corps was reduced. In Sind, reductions to the extent of 1,30,000 per annum were effected in the Rural Police, the Chandia and Jakrannee Horse and the Jacobabad Burkundazes, and orders for further reductions in that Province, so as to bring the aggregate saving up to Rs. 2,29,000 per annum, and to leave its Police charges at 5 lakhs per annum only, were carried out. The total strength is not given.

Jails.—No statistics are given. There was a diminution in the number of prisoners, and the re-committals were fewer as well as the committals of juveniles, than in 1859. The total deaths from all causes amounted to 5·1 per cent. on the daily average strength; and, deducting the deaths from cholera, old age, and homicidal violence (of which one occurred), the mortality was only 2·6 per cent. Jail discipline was much improved, both as regards the prisoners and the Jail Establishments, and considerable reductions were effected in Jail Guards and Jail Establishment.

REVENUE.—Land—In the Northern Division the Land Revenue in Broach, Kaira, and Surat increased; in Khandeish, Ahmedabad, and Tanna there was a decrease.

1859-60	Rs. 1,04,37,059
1860-61	„ 1,05,08,866

Increase in 1860-61	...	Rs. 71,807
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The *Sayer* Revenue showed a falling off of Rs. 1,38,648.

1859-60	Rs. 11,53,405
1860-61	„ 10,14,757

Decrease in 1860-61	...	Rs. 1,38,648
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By reducing Broach to a sub-collectorate a saving of Rs. 45,000 per annum was effected. In the Southern Division the Land Revenue in Poona, Ahmednuggur, Sholapore, Belgaum, and Suttara increased; in Rutnagherry and Dharwar there was a decrease.

1859-60	Rs. 93,08,782
1860-61	„ 94,41,917

Increase in 1860-61	...	Rs. 1,33,135
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In the *Sayer* Revenue there was also an increase of Rs. 4,16,768.

1859-60	Rs. 11,55,382
1860-61	„ 15,72,150

Increase in 1860-61	...	Rs. 4,16,768
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Orders were received for the transfer to the Bombay Presidency of the northern portion of the Canara Collectorate, including the Port of Sudashewghur. In the Island of Bombay the Revenue from land was Rs. 77,106. The Abkaree Revenue amounted to Rs. 1,19,032. This was for the year ending 30th April, the amount shown as Rs. 80,564 in the last Report being that for the year closing with October 1859. The Stamp Revenue exceeded by far that of several previous years, the

amount realized being Rs. 2,23,249. Of Sind it is reported that in Kurrachee the total revenue amounted approximately to Rs. 4,63,713, against Rs. 5,35,953 collected during the preceding year. In Hyderabad it amounted approximately to Rs. 9,51,602, against Rs. 9,57,045 realized during 1859-60. In Shikarpoor, however, there was an increase, the land Revenue for 1860-61 being Rs. 14,37,000, against Rs. 12,70,000, the amount collected during the previous year. The steady increase of the Revenue of the Shikarpoor Collectorate during the last six years is worthy of remark :—

1855-56	...	...	...	Rs. 11,57,655
1856-57	...	...	...	" 13,27,152
1857-58	...	...	...	" 13,78,095
1858-59	...	...	...	" 14,21,338
1859-60	...	...	...	" 14,37,000
1860-61	...	...	...	" 14,37,000

As regards the Frontier District of Upper Sind, the realizations on account of Land Revenue show a considerable increase. The collections in 1859-60 amounted to Rs. 74,642, while the year under report shows a total of Rs. 98,345, being an increase of Rs. 23,703. The Biggarree, the principal canal in the Frontier District, appears to have been the means, since its first enlargement, of steadily swelling the returns, and larger returns in future years are anticipated. The Thurr and Parkur Districts, together with the villages likely to be irrigated from the Mitrow Canal, in course of excavation, were detached from the Hyderabad Collectorate, and formed into a Political Superintendency. The land revenue for 1860-61 of this Division is approximately stated at Rs. 82,000.

The *Sayer* revenue of Sind was Rs. 3,29,888.

1860-61	...	...	...	Rs. 3,29,888
1859-60	...	...	...	" 2,42,707

Increase in 1860-61 Rs. 87,181

Alienated Revenues.—During the year, the Alienation Department was re-organized; the offices of Revenue Commissioner for Alienations and Inam Commissioners having been abolished, and the settlement of all claims to alienated lands, in accordance with the terms of the Summary Settlement, confided to the Revenue Commissioners, Northern and Southern Divisions. A reduction of Rs. 1,37,752 per annum was thus effected. Forty-five claims to hold land exempt from assessment were adjudicated in Guzerat. One thousand, seven hundred, and eleven claims to cash allowances, of the annual value of Rs. 47,802, were disposed of: of these 930, valued at Rs. 40,996 per annum, were continued permanently or temporarily, and 781, valued

at Rs. 6,806 per annum, were ordered to be discontinued. The result and cost of litigation regarding alienated revenue in the Northern Division during the year, were as follows :—

Number of Suits finally decided.	Nature of Decision.	Value of Suits.			Cost incurred by Govt.		
		Rs.	A.	P.	Rs.	A.	P.
19	Decided in favour of Government ...	28,007	7	2	2	4	10
257	Ditto against Government	32,655	6	7	1,603	12	10
3	Withdrawn by the opposite parties	700	10	9			
<hr/> 279		62,263	8	8	1,606	1	8

Forty-eight bonds, of the value of Rs. 10,920, on account of compensation to individuals for abolished duties and cesses, were redeemed. In the Deccan and Southern Mahratta Country, 455 claims to alienated revenue, of the annual value of Rs. 22,784, were decided as follows :—

	No. of Claims.	Annual Value.
Declared permanent	4	720
Ditto hereditary	9	4,703
Continuable for one or more lives	27	4,822
At once assessed	121	3,151
Declared Surinjams	7	293
Disposed of on the terms of the Summary Settlement	287	9,095
Total	455	22,784

Twenty-eight compensation bonds, amounting to Rs. 10,405, bearing interest at 10 per cent., were redeemed. Nine hundred and three claims to Cash Allowances, of the annual value of Rs. 55,016, were disposed of. Of these—

112, valued at Rs. 27,059,	were declared permanent.
237 " 6,696	hereditary.
116 " 5,773	continuable for one or more lives.
438 " 15,488	discontinued.
<hr/> 903	<hr/> 55,016

The expenditure of the Alienation Department was Rs. 1,13,678.

In *Sind* the alienations under the four classes amounted to—

	Rs.	...	5,16,098	8	0
Political Pensions to Rs.	...	4,24,537	0	0	

Total Rs. ... 9,40,635 8 0

The Jagheer office was amalgamated with the office of the Commissioner in Sind, and the appointment of Assistant Commissioner for Jagheers ceased to exist.

Income-tax.—54,060 persons were assessed in the Town and Island of Bombay, and 1,80,906 in the districts in the interior. The percentage of persons assessed to the whole population is 7·405 per cent. in the Town of Bombay, and 1·614 per cent. in the interior. The collections on account of Income Tax, imposed during the year 1860-61, amounted to 36 lakhs of Rupees, of which sum Rs. 6,85,000 were raised by the duty of 1 per cent., imposed under Section 3 of Act XXXII. of 1860, for the purposes of roads, canals, and other reproductive public works.

The *Stamp Duty* yielded Rs. 23,91,139-12-4. The new Stamp Act was introduced on the 1st October 1860, and the sale for the 8 months from September to April amounted to Rs. 20,80,994-9-4, as compared with Rs. 6,34,267-1-3 realised during the corresponding 8 months of the previous year. This shows an increase of 228 per cent.

Customs, Salt and Opium.—There was a decrease of little more than 5 per cent. on the Import collections, caused partly by a decrease in the trade, by the abolition of the 20 per cent. duties, by a decrease in the imports of Spirits.

Imports.

1859-60	...	...	Rs.	95,57,020
1860-61	...	...	„	90,91,739

Decrease in 1860-61 ... Rs. 4,65,281

The Export duties shew an increase, the frontier duties a decrease chiefly in Salt and the land customs in Guzerat an increase.

Exports.

1859-60	...	...	...	Rs.	6,51,934
1860-61	...	...	...	„	7,48,985
Increase in 1860-61	...	...	...	Rs.	97,051

Frontier Duties.

1859-60	...	...	...	Rs.	2,19,099
1860-61	...	...	...	„	2,07,983
Decrease in 1860-61	...	...	...	Rs.	11,116

	1859-60.	1860-61.	Decrease.
Salt ...	1,50,491	1,42,966	7,525
Other Goods	68,608	65,017	3,591
	<hr/>	<hr/>	<hr/>
Rs. ...	2,19,099	2,07,983	11,116

Land Customs.

1860-61	...	...	Rs.	51,029
1859-60	...	...	"	49,521
				<hr/>
Increase in 1860-61	...	...	Rs.	1,508

SALT.

1859-60	...	...	Rs.	34,35,791
1860-61	...	...	"	30,10,300
				<hr/>
Decrease in 1860-61	...	...	Rs.	4,25,491

*OPIMUM.**Realizations.*

1860-61	...	...	Rs.	2,44,00,600
1859-60	...	...	"	1,53,62,700
				<hr/>
Increase in 1860-61	...	...	Rs.	90,37,900

Chests.

1860-61	...	...	Rs.	45,072
1859-60	...	...	"	32,506½
				<hr/>
Increase in 1860-61	...	...	Rs.	12,565½

The aggregate realizations on account of Customs, Salt and Opium, including miscellaneous items, amounted to Rs. 3,79,89,192, while in the preceding year the amount was Rs. 2,96,74,939, showing an increase of Rs. 83,14,253.

1860-61	{ Customs	...	Rs.	1,04,12,054	
	{ Salt	...	"	31,04,940	
	{ Opium	...	"	2,14,12,198	
				<hr/>	3,79,89,192
1859-60	{ Customs	...	Rs.	1,07,32,232	
	{ Salt	...	"	35,55,108	
	{ Opium	...	"	1,53,87,599	
				<hr/>	2,96,74,939
	Increase	...	...	Rs.	83,14,253

In Sind the following shows the value of the trade.

CUSTOMS.

1859-60	...	Rs.	2,66,00,865
1860-61	...	"	2,68,36,499
			<hr/>
		Rs....	2,35,634

The Customs Revenue from all sources is stated to amount to Rs. 6,28,438-5-7, showing an increase on the preceding year of

Rs. 1,31,870-2-6. Deducting from this the Harbour revenues the income was Rs. 5,65,713-3-10. At Aden the trade was.

CUSTOMS.					
Imports	...	{	Goods	...	Rs. 57,94,563
			Treasure	...	" 13,74,466
					<hr/> 71,69,029
Exports	...	{	Goods	...	Rs. 18,15,686
			Treasure	...	" 10,10,275
					<hr/> 28,25,961

Grand Total ... Rs. 99,94,990

The total number of arrivals of square-rigged vessels was 261, aggregating 2,36,592 tons, being 34 less than in the previous year. The tonnage, however, increased by 9,602 tons. The number of arrivals of Country craft was 970, of the burden of 1,11,232 tons, being an advance over the preceding year of 29 boats and 73,654 tons. Trade with the interior of Arabia nearly doubled during last year, the increase being 8½ lakhs of Rupees. 1,43,012 camel loads, of the estimated value of Rs. 10,83,233, were brought from the interior.

FINANCIAL.—The following is an abstract view of the Disbursements and Receipts in 1859-60 :—

Disbursements.		Receipts.	
	Rupees.		Rupees.
Political Department	.. 58,08,000	Political Department	... 85,000
General ditto	... 59,99,000	General ditto	... 32,59,000
Judicial ditto	... 66,77,000	Judicial ditto	... 4,84,000
Revenue ditto	... 1,11,18,000	Revenue ditto	... 6,30,02,000
Tribute	... 90,000	Marine ditto	... 5,21,000
Marine Department	... 39,56,000	Military	... 30,69,000
Military ditto	... 5,37,84,000	Tribute	... 9,94,000
Public Works ditto	... 45,29,000	Public Works Department	4,73,000
Interest	... 12,27,000	Interest on Bank of Bom-	
Profit and Loss	.. 14,21,000	bay shares	... 30,000
	9,46,09,000	Interest	... 1,32,000
Deduct Receipts	... 7,22,90,000	Profit and Loss	... 2,41,000
Deficit...	Rs. 2,23,19,000	Total...	Rs. 7,22,90,000

The amount of Silver coin made over to the Treasury by the Mint was only about 198 lakhs, or less than one-half the amount coined during the previous year. Nearly 2,45,000 Rupees worth of Copper Pyce was coined during the year. Large reductions were effected in every branch of the Civil Administration. The reductions in the Permanent Establishments amounted to Rupees 16,61,905-2-0 per annum, whilst Temporary Establishments, to the extent of Rupees 6,37,048-5-0, were also discontinued.

POLITICAL.—North Eastern Frontier.—In May 1860 a body of rebels in the Banswarra district, attacked by several of the petty neighbouring chiefs with the assistance of the late Aden Horse, fled to Saloomber without fighting. A party of Pathans, headed by a Brahmin, issued a perwanna in the name of the Peishwa near the same place, but they also retreated towards Peit, in Meywar, on being threatened by the Raja of Loonawara. At the same time a considerable body of Bheels assembled in the Burwance districts, to the north of Khandeish, entered the Sultanpore Talooka, attacked the village of Kheir and plundered it. On 14th July Khajee Sing, a pardoned rebel, seized a convoy of twelve camels laden with treasure of the value of Rs. 2,75,000 on the way to Indore, and then hid himself in the Satpoora range. The Head-quarter's wing of the 26th N. I. and 150 sabres of the Poona Horse, came up with the Bheels in the hills on 1st August and routed them. Khajee Sing's uncle was taken, and the Naik himself only escaped after a pursuit of eight miles by taking on foot to a jungly ravine under cover of evening. Khajee Sing was subsequently treacherously slain. His son, Pholad Sing, was captured, and was shortly afterwards removed from Khandeish to Sind as a measure of precaution. Arrangements were made in concert with the Governor General's Agent in Central India, to prevent the occurrence of any further Bheel outrages on the north of the Khandeish frontier.

Guzerat.—H. H. Rao Desuljee of Kutch died in the end of July 1860. The present Rao, as heir apparent, succeeded to the Gadee, under the title and name of "Maharajah Mirza Rao Shree Pragmuljee." He inaugurated his reign by the inscription of Her Majesty's name upon his coinage. The famine was felt in Pahlunpoor and Kutch, on the N. W. districts of Kattywar and particularly in Okhamundel where Jodha Manik, the outlawed Wagher Chief, who had been the leader in the rebellion in 1859, taking advantage of the distress experienced by his clan, endeavoured once more to excite them to insurrection. He plundered the large town of Korinar but Major Honner dispersed his band. Arrangements were made for placing the Gaekwar's districts in Kattywar under the administration of two British Officers subordinate to the Resident at Baroda. Measures were also in progress for raising a Corps of Police from the Wagher and other cognate tribes, and for otherwise ameliorating their condition. Major R. Johnstone promises to realise the hopes of the civilisation of the dreaded "Pirates of Okhamundel."

In January 1861 His Excellency the Governor made an

official tour through Guzerat and Sind. The re-transfer to the Bombay Government, in the month of November preceding, of the management of relations with His Highness the Gaekwar, rendered His Excellency's visit to the capital of that Prince specially desirable. At Ahmedabad His Excellency received the Chiefs of the Mahee Kanta and others in open Durbar, and presented to the Dewan of Pahlunpoor a Khillut, valued at Rs. 3,000, in recognition of his loyalty in 1857-58. From Ahmedabad His Excellency proceeded to Kattywar and held a Durbar at Limree. On entering the Bhownuggur territory he was received by the Thakoor of that place and others, accompanied by the Political authorities. His Excellency held a Durbar at Bhownuggur, at which the Thakoor and other neighbouring Chieftains were present, and he afterwards paid a return visit to the former before taking his departure for Gogo, at which place His Excellency embarked for Sind.

Southern Marhatta Country.—Sir G. Clerk, in November and December, visited the district, as well as Kolapoor.

Sind.—The Murree hostages fled from Khelat.

Aden.—The country in the vicinity of Aden enjoyed a measure of prosperity unknown for years.

Perim.—The Light on Perim was exhibited for the first time on the first of April last, and has since worked exceedingly well. It is a bright light, revolving once in four minutes, situated on the east side of the island towards the narrow strait, 241 feet above the level of the sea. It can be seen from the deck of a vessel at a distance of 22 miles.

PUBLIC WORKS.—The Budget, as revised, stood thus :—

Part 1, New projects proposed for sanction of Government of India, amount ...			Rs.	2,15,176
„	2, Original Works in progress	„	17,47,161	
„	3, Reserve Fund	„	2,82,500	
„	4, Repairs	„	16,35,838	
„	5, Establishments	„	11,69,325	
Total			Rs.	50,50,000

The expenditure was Rs. 48,06,361. The cost of Establishment, excluding "direction," is equivalent to 24·9 per cent. upon the sum actually expended upon works.

Fortifications of Bombay.—The following was expended :—

Oyster Rock Battery	...	Rs.	85,573	1	2
Cross Island	...	"	26,389	3	5
Malabar Point	...	"	14,786	15	3
Butcher's Island	...	"	6,779	14	3
Pan Pir Quarry	...	"	25,427	9	0
Reclamation	...	"	9,735	9	10

Rs. 1,68,692 4 11

In *Sind* the expenditure was Rs. 16,66,914.

Railways, G. I. Peninsula—On the 1st May 1860, 277 miles were open for traffic, and 856 let to contract. On June 6th the last portion, completing the South-Eastern line to Sholapoor, was opened for traffic, a length of 20½ miles; and in January last, on the North-Eastern line, 22 miles from Shapoor to Kussara (below the Tull Ghaut), and 31½ miles from Egutpoora (at the top of the Tull Ghaut) to Nassick, were also completed, so that 351 miles were open for traffic: of these, 114 are in the Concan, and 236 in the Deccan. The two breaks, viz., the Bhore Ghaut, 13 miles long, on the South-Eastern line, and the Tull Ghaut, 9½ miles long, on the North-Eastern line, remained unfinished. The expenditure on capital account in India for the past official year was Rs. 127,45,673, and since the commencement up to May 1st £3,829,070, at the Railway rate of Exchange, have been spent in India, and up to 15th April £2,876,656 expended at home. In passengers, an experiment was made by the introduction of the 4th Class at a very low fare, 1½ pie (3-16th pence) per mile, for six months, to suit the poorer classes, who still travelled along the road.

The following were the results :—

384,091 3rd Class, earning Rs. 1,87,037,	} travelled,
and 618,059 4th Class, earning Rs. 2,39,935,	

1,002,150

Rs. 4,26,972,

while in the corresponding time of the previous year, only 584,301½ 3rd Class travelled, earning Rs. 3,31,825. It is satisfactory to have induced 418,000 persons to use the Railway more than in the six months of the former year, and though the receipts increased only 28 per cent., against 71 per cent. increase of numbers, and the additional expenditure caused by the greater number has not been accurately estimated, it is certain the Company will always find in the 4th Class traffic a profitable source of revenue, and that 3rd Class fares are too high for the large masses of Indian population. The

total traffic receipts for the year, on a mean length of 288 miles open, were, for Passengers Rs. 10,40,148, Goods Rs. 11,03,421, and the gross expenditure was Rs. 12,96,900.

Bombay, Baroda and Central India Line.—The year shows an increase of 70 miles to the open line, and the completion of the Taptee Viaduct. By the middle of June, an Engine will have crossed the Nurbudda, and another 30 miles will probably be opened. The account of the line and its prospects is thus summed up :—

		99½ miles are open for traffic.
Bombay Extension ...	9½	" Sucheen to Nowsaree, in May 1861.
	22½	" Nowsaree to Bulsar, in June 1861.
	7	" Bulsar to Par River, about October 1861.
	11	" to Bombay, about June 1863.
Ahmedabad Line ...	34	" from Doolia to Memoodabad, with a break at the Mhyee River, about November 1861.
	17½	" Memoodabad to Ahmedabad and Mhyee Viaduct, possibly June 1862.

The Indian expenditure on capital account during the past year amounted to Rs. 48,40,676-14-8. It may be estimated at about 52 lakhs for the present year, and the same for the year after, when the line will probably be open throughout. Since the commencement to the 1st of May £1,184,957 have been spent in India, reduced by the Railway rate of exchange, and £1,340,554 in England up to the 15th April. Payments, however, in shares have only amounted to £2,157,829, Government having advanced the remainder.

Sind Line.—On the 1st May the road was laid through from Kootree to Kurrachee Station, 108 miles long; almost all the fencing was finished; all the bridges but three, and all the main works of the line, were completed. In the year ending 1st May 1861, Rs. 33,42,547 were spent in India on capital account, and the total expenditure on the line has been in India up to that time, £765,455, converted at the Railway rate of exchange, and up to April 15th, £600,308 in England. This gives a rate of £12,000 per mile already spent.

Indus Steam Flotilla Company.—On the 1st May 1861 the state of progress of the Indus Steam Flotilla was thus reported :—The "Stanley," Passenger Steamer, and one Tug Steamer called A, were afloat, parts of a second steamer had arrived at Kurrachee, and five Tugs were in different stages of progress. The Company spent in India this year Rs. 409,923; their expenditure since the commencement in 1859 up to May 1st, 1861, has been in India £51,519 reduced by the Railway rate of exchange, and £189,700 in England, up to April 15th,

1861. It is estimated that the total cost, before the proposed complement is completed, will be £350,000, the capital first estimated, and all that is at present guaranteed is £250,000 and £83,000 debentures.

MILITARY.—The European Force was reduced, by sending away H. M.'s 57th and 64th Regiments of Foot, the 8th Hussars, one Troop of Royal Horse Artillery, and one Battery of Royal Artillery, without relief. Seven Batteries of Artillery were converted into Garrison Companies. The established strength of all Native Regiments was fixed at 600 privates, or 712 of all Native Ranks. The Regular Cavalry were converted to the Sil-ladar system. The force on the Sind Frontier was reduced from 2,400 Cavalry to 1,800; and the two corps of Jacob's Rifles, which were each 800 strong, were reduced to 400 strong. The detachment of Golundauze was removed from Jacobabad, and the guns manned by men of the other Arms. The Joint Remount Agency was abolished, and the purchase of Horses left to separate management by each Regimental Commanding Officer. A Brigade, consisting of a Native Cavalry Regiment, two Native Infantry Regiments, and a detachment of the Artillery Mountain Train, was furnished to Aurungabad. Large additional reductions of Cattle Establishment were made, the Waggon Train in Sind abolished, and the Transport Train between Bombay and Mhow reduced to a small establishment. The Ordnance Establishments were generally revised and reduced. The principal portion of the stores in the Kurrachce Arsenal were removed to Hyderabad; a Depot was established for the supply of the troops at the former station. The Arsenal at Sholapoor and Depot at Malligaum were broken up, and the stores removed to Poona, Belgaum, and Ahmednuggur. The stores in the Ajmere Arsenal were distributed to Mhow, Neemuch, and Ahmedabad. The strength of the Bombay Army of all ranks, excepting European Commissioned Officers, was—

		On 1st May 1860.	On 1st May 1861.	
Artillery	{ European ...	2,395	2,560	
	{ Native ...	1,771	1,604	
			4,166	4,164
Cavalry	{ European ...	2,052	1,349	
	{ Native ...	6,128	4,672	
			8,180	6,021
Sappers	{ European ...	55	58	
	{ Native ...	576	566	
			631	624
Infantry	{ European ...	11,028	8,773	
	{ Native ...	31,979	25,349	
			43,007	34,122
			55,984	44,931

MARINE.—During the past year the Indian Navy undertook as heretofore, the Naval duties in the Persian Gulf and Red Sea. Several of the vessels were despatched to China in the early part of the year, where they were employed with the Royal Navy until the conclusion of Peace, when they returned to India, bringing back a portion of the Military Force. The *Assaye* and *Punjaub* Steam Frigates were sent to England under sail towards the close of the year, in compliance with the orders of the Secretary of State, and conveyed a number of invalid and time-expired soldiers.

EDUCATION.—*The University* held its third matriculation examination in March. There were 86 candidates from different schools; of these, 39 passed, viz. 19 Hindoos, 19 Parsees, and 1 Portuguese. There was only one Muhomedan candidate, who failed. The first examination for the Degree of Licentiate of Medicine was held in March 1860. There were in all 8 candidates; the passed men were—3 Parsees, 2 Hindoos, 1 Portuguese, and 1 Mahomedan. The following institutions were during the year affiliated to the University :—1. Elphinstone College, General; 2. Poona College, General; 3. Grant Medical College, Medical; 4. Government Law School, Law. No private college applied for affiliation.

In Sind, the introduction of the Income-tax led to a cessation in collecting unlegalised local funds, which checked education. Cholera drove away numbers of pupils. In Sind and Bombay there were 680 schools and 36,705 scholars against 555 schools and 30,630 scholars in 1859-60, shewing an increase of 132 schools and 7,129 scholars.



About 2,75,000 persons were vaccinated during the past year ; of this number 2,50,000 were successful vaccinations. The relative numbers of the different castes vaccinated were as follows :—Hindoos 70 per cent., Mussulmans 25 per cent., and other castes 5 per cent., whilst the ratio of Males to Females was as 54 Males to 46 Females. Of those vaccinated, 33 per cent. were under one year old, and the remainder above that age.

Conservancy.—The operation of Act XXVI. of 1850 was suspended in the five Towns of Bunkapoor, Patree, Ranpoor, Mandul, and Byle Hongul, and it was introduced into several towns in the province of Sind, where the different Municipalities continued to contribute greatly towards the comfort and well-being of the people. The Municipality of the Presidency Town did the following business :—

RECEIPTS.				DISBURSEMENTS.			
	Rs.	A.	P.		Rs.	A.	P.
Balance on the 31st December 1859	2,99,493	8	4	Police charges	77,181	4	10
Assessed Taxes	4,14,278	13	3	Establishment and Contingencies	97,430	15	3
Fees and Fines	1,11,288	2	4	Roads	3,41,545	1	5
Town Duties	3,13,912	15	1	Repairs	8,611	15	1
Stores and Live Stock, sale proceeds of	11,555	3	11	Contribution on account of Vehar Water Works	1,75,000	0	0
Miscellaneous	20,870	0	3	Ditto ditto Drainage	2,50,000	0	0
				Stores supplied to the Surveyor	32,556	6	1
				Miscellaneous	14,230	1	8
				Balance on 31st December 1860	1,77,872	14	10
Rs. 11,74,428	11	2		Rs. 11,74,428	11	2	

The total payments made into the General Treasury, for the purposes set forth in Sections 30 and 31 of Act XXV. of 1858, were

Vehar Water Works	...	...	Rs. 2,46,438	5	8
Drainage	...	...	3,52,054	12	8

Total ... Rs. 5,98,493 2 4

The *Survey* went on under Captain W. C. Anderson in Sattara, the Southern Mahratta Country and in the Raichore Doab. Under Captain C. J. Prescott the Revenue Survey continued at work in the Collectorates of Ahmedabad, Kaira, and Surat. The total area surveyed was a little over 404 square miles, divided into 81,156 fields, comprising 2,58,985 square acres. The total area classified was 2,24,475 acres, divided into 55,427 fields. The total area subjected to both operations was 4,83,460 acres, divided into 1,36,583 Revenue Survey numbers or fields. In Rutnagherry the work went on under Captain

J. T. Francis. Settlement Survey operations were in progress in all the three Collectorates of Sind. In Kurrachee, Boundary Marks were erected, and Boundary Surveys completed in 106 villages, and in 11 villages field-measurements were completed. The total cost in Sind up to 30th June 1860 was Rs. 1,97,013-9-4.

Forests.—The Sind Forests, were under the management of Messrs. N. A. Dalzell and W. Fenner. Their Revenues increased from Rs. 1,06,301 in 1859-60 to Rs. 1,12,285 in 1860-61, or by Rs. 6,984. The expenditure decreased from Rs. 56,162 to Rs. 49,542, or by Rs. 6,620. The net revenues of the Forests thus show an increase of Rs. 13,604.

Agriculture.—There were two cases in which parties were convicted at Broach of exposing cotton to heavy dews at night previously to packing it for sale. The attempts to introduce Foreign Cotton into Sind were unsuccessful, in consequence of the seed received from the Cotton Supply Association, through the Bombay Chamber of Commerce, having arrived too late for the sowing season. The experiments in the cultivation of Imphoe or Sorgho Sucre were continued with considerable success.

Emigration.—Only three ships were despatched with Emigrants to the Mauritius, conveying 860 Emigrants. In the previous year, nine ships, with 3,471 Emigrants, were sent from Bombay.

THE
ANNALS
OF
INDIAN ADMINISTRATION.

ADMINISTRATION OF OUDH.

1860-61.

I JUDICIAL.—*Civil Justice*.—Out of 6,944 regular suits on the file 6,594 were disposed of—of which one-third were for sums not exceeding Rs. 20, a somewhat larger number for sums from Rs. 20 to 100 and the remainder for greater sums. The entire property under litigation amounted to Rs. 14,71,028. The average duration of cases increased pretty regularly from 15 days in petty suits, to 50 days in larger suits. The rules of procedure, which approach very nearly to the civil procedure Act VIII. 1859, worked smoothly, and the system of maintaining regular cause lists was successfully adopted. The system of Rural Registration worked well—17,002 registrations of deeds were made. The Registrars were made vendors of stamps so as to avoid any inconvenience under Act XXXVI. 1860 according to which only stamped deeds can be registered. The number of suits in the Lucknow Civil Courts was large, and one of the officers of the Commission was deputed as Assistant to the Civil Judge.

Trial by Jury was introduced and the preparation of good and complete Jury lists was in progress. The Governor General granted authority to try Civil Suits, when the claim does not exceed Rs. 150 in value, to those Talookdars who were last year vested with criminal and revenue powers. Other Talookdars were appointed Honorary Assistant Commissioners.

Criminal Justice.—Several sepoys concerned in the Shajehanpore massacre were executed, and a large number of persons

Crime in Oadh.

were punished for retention of arms. The number of murders diminished, but there was an increase in the number of violent assaults and affrays. There were a few Dacoities during the year, but none of importance. There was no increase or decrease in ordinary violent crimes against property, though, as was to be expected, the number of ordinary thefts and burglaries, as also of minor offences, such as petty assault, abduction, trespass, &c., largely increased. This is in a measure attributable to the greater accuracy with which crimes were reported during the year. Of 23,018 persons brought to trial, 12,789 were convicted or committed, 9,464 acquitted or released. The Deputy Commissioners used their increased powers only in imprisoning 80 persons for more than 3 years and in transporting 50. The following table shews synoptically the whole of the punishments inflicted in 1860 :—

Tribunal.	Transportation			Imprisonment.			Flogged	Fined.	Outlawed.	Dismissed.	Security.	
	Death.	Life.	For terms	Above 3 years	3 years and under	Total						
Judicial Commissioner,	28	38	12	50	16	11	27				2	
Commissioners,		33	33	28	28	56	9	29	3	1	10	
Distriet Officers,		52	52	80	2,040	2,120	4,096	7,386		112	427	
Total	28	38	97	135	124	2,079	2,203	4,105	7,415	3	113	439

Deaths from flogging occurred in Fyzabad Jail. Stringent orders were issued to render the flogging less severe. A considerable number of Sutte cases occurred simultaneously in the early part of the year; severe punishments were awarded, and measures taken to make known the determination of Government to suppress peremptorily this class of offence. There were some mysterious murders in the Oonao district by strangulation and poison; they occurred within a space 20

square. No clue was obtained to the perpetrators. In one case the Police were the murderers and were executed.

Police.—The District Superintendents of Police were subordinated to the District officers, though the separate organization of the Police under an Inspector General was strictly maintained. The European District Superintendent is now under the orders of the Deputy Commissioner, and entirely at his disposal for the performance of Police duties. For this purpose he is an instrument in the hands of the Deputy Commissioner, but the latter regard the District Superintendent as the responsible head of the Police, and abstains from issuing orders direct to the Native Police. Promotions, rewards, and punishments are entirely in the hands of the District Superintendent; but if a Policeman commits an offence for which he should be punished judicially, he must be prosecuted before a Magistrate. Considerable reductions and modifications were made in the organization of the force, so that the Oudh Police, which in 1859 contained in its ranks 14,760 men of all grades, at an annual cost, including officers, of Rs. 26,04,318, is now in strength 8,523, and costs Rs. 14,11,980. In anticipation of the extension to the Province of Act V. 1861, the nomenclature of the Police, which was too Military, was changed in conformity to the Act, and the Town and Cantonment Police have been incorporated with the General Police force of the Province. The population of Oudh, excluding Lucknow (for the Police duties of which city there is a separately organized body paid from the local funds), cannot, in the Chief Commissioner's opinion, be less than seven millions. The rate of Police to population, at this calculation, would be 1 to 821, and to area 1 to 327 square miles; the area of the Province after the cession of territory to Nepal having been estimated by Lieutenant-Colonel Vanrenen, of the Revenue Survey Department, by triangulation of the map, at 27,890 square miles. The future proportion of castes for the whole force, mounted and foot, has been fixed at, Brahmins and Rajpoots, 2,000; inferior caste, Hindoos, 3,500; Mussulmen, 1,000; Seikh and Punjabees, 2,000. The Town and Cantonment Police are composed as follows:—

<i>Cantonment Police.</i>	<i>Town Police.</i>
5 Chief Constables.	12 Chief Constables.
24 Head Constables.	50 Head Constables.
140 Constables.	636 Constables.

The Lucknow City Police was reduced from 1,183 to 857 at a saving of Rs. 2,386, a month.

Jails.—The want of Jail accommodation was seriously felt, but two barracks at Sultanpore were converted into a Jail, and prisoners were largely employed in the Jail works which are in course of construction at Lucknow, the saving to government of which is estimated at Rs. 1,296 in less than 3 months. The rate of mortality in most of the Jails was from 2 to 5 per cent. The number of prisoners under confinement during the year was 12,029, showing an increase on the past year of 3,098. At the end of the year 2,011 remained in prison, of whom 1,588 were sentenced to rigorous and 80 to simple imprisonment. There were also 23 Civil prisoners, and 291 under trial.

REVENUE.—Land Tax.—Owing to the famine in the North-Western Provinces and the Punjab, the export of grain from Oudh was enormous. The direct management of estates throughout the Province, including those held under the Court of Wards, amounted to 750 for which a balance was credited to the state of Rs. 5,05,548. The remissions of Revenue during the year amounted to Rs. 21,405-6-0. The system of securing the sub-proprietors in Talookdarce estates from extortion, by insisting on their being granted a Pottah, worked satisfactorily. The following statement shews the number of suits between landlord and tenant.

DIVISIONS.	BY LANDLORDS AGAINST TE- NANTS.		BY LESSEES AGAINST TENANTS		BY TENANTS A G A I N S T LANDLORDS.		GRAND TOTAL.	
	With.	Without.	With.	Without.	With.	Without.	With.	Without.
Khyrabad, ...	226	522	53	40	298	601	577	1,163
Lucknow, ...	110	1,386	7	80	258	1,259	375	2,725
Baraitch, ...	276	422	339	759	473	452	1,088	1,633
Baiswarra, ...	193	434	22	25	603	796	818	1,255
	805	2,764	421	904	1,632	3,108	2,858	6,776
		805		421				
		3,569		1,325				

The Land Revenue was collected with remarkably small balances, as the following Table will show :—

DIVISIONS.	Year.	PARTICULARS OF BALANCES.									
		Demand.	Collections.	Balances.	REAL.				Nominal.	Total of Balances.	Remarks.
					In train of liquida- tion.	Doubtful.	Irrecov- er- ble.				
Lucknow	1859-60	27,91,598	27,55,416	36,182	3,951	2,227	22,922	9,209	36,182	1-31	
Ditto,	1860-61	27,91,834	27,77,513	14,321	704	...	12,418	1,127	14,319	0-51	
Khyrabad,	1859-60	24,18,027	23,94,370	13,657	...	164	164	17,547	13,657	0-55	
Ditto,	1860-61	24,22,618	24,16,353	12,264	422	803	999	1,502	12,264	0-50	
Baiswarra,	1859-60	25,23,401	25,15,486	7,915	198	...	...	7,717	7,915	0-31
Ditto,	1860-61	25,13,567	25,03,627	3,939	...	41	41	3,897	3,939	0-15	
Baraitch,	1859-60	26,37,082	26,10,555	26,527	13,910	814	5,150	7,467	26,527	1-01	
Ditto,	1860-61	25,72,823	25,71,092	1,731	...	...	...	1,731	1,731	0-06
Total of,	1859-60	1,03,70,108	1,02,75,828	94,281	18,059	3,205	28,216	41,940	94,280	0-90	
Ditto,	1860-61	1,03,06,842	1,02,74,587	32,252	11,126	844	13,458	8,257	32,255	0-31	

The number of suits for exaction decreased one-sixth while those for the attainment of pottabs doubled. A comparative statement showing the number of summary suits instituted during the past and preceding years is subjoined :—

DIVISIONS.	SUITS FOR RENT.		SUITS FOR POT-TABS.		EXACTION.		OUSTER.		TOTAL.	
	1859-60.	1860-61.	1859-60.	1860-61.	1859-60.	1860-61.	1859-60.	1860-61.	1859-60.	1860-61.
Khyrabad ..	717	657	...	41	323	230	375	547	1,415	1,475
Lucknow ...	1,410	1,478	30	69	658	432	809	1,889	1,231	1,427
Baraitch ...	825	1,027	397	1,058	706	450	906	748	2,834	3,283
Baiswarra ..	847	765	241	348	682	387	1,139	802	2,909	2,252
Total ...	3,899	3,927	668	1,516	2,369	1,899	3,229	3,486	8,389	8,437

The investigations into rent-free tenures made satisfactory progress. The following statement shows the number already disposed of. In the great majority of those cases in which resumption was decreed, the orders will not be carried into effect till the regular settlement.

The Regular Settlement was commenced in Pertabgurh in the Baiswarra Division, and Oonao in the Lucknow Division.

Assessed Taxes.—The following table shews the estimated product of the Income Tax for the first year ending 31st July, 1861.

DIVISIONS.	Schedule I.	Schedule II.	Schedule III.	Schedule IV.	TOTAL.
Lucknow, ...	25,997	6,067	65,368	55,983	1,53,415
Khyrabad, ...	29,231	84	24	6,338	35,677
Baiswarra, ...	17,295	4	55	8,006	25,360
Baraitch, ..	54,682	188	1	8,497	63,368
Total ...	1,27,105	6,343	65,448	78,824	2,77,820

Customs Eccise.—Sudder Distilleries were introduced in the Sudder Tehseel of every district, leaving it optional to the District Officers to extend them generally throughout their districts.

Stamps, Salt, Opium.—The income from Stamp revenue increased, though not so much as expected. The subjoined is a comparative table shewing the Revenue from Stamps during 1859-60 and 1860-61.

DIVISIONS.	1859-60.	1860-61.
Lucknow,	75,613	1,07,272
Khyrabad,	17,773	23,282
Baiswarra,	28,189	31,367
Baraitch,	20,455	31,574
Total	1,42,030	1,93,495

The manufacture of salt, except for home consumption, was entirely suppressed. The prohibition against the manufacture of "Kharee" salt, for the use of cattle, was removed, which deemed a great boon by the people. Saltpetre is manufac-

tured to a considerable extent in the Province. 8,000 maunds were taken to Fyzabad for shipment. The proceeds of the revenue from the sale of opium were :—

Lucknow,	...	...	...	78,308
Khyrabad,	...	...	...	28,568
Baiswarra,	...	...	...	27,617
Baraitch,	...	...	...	7,704

1,42,197

EDUCATION.—Grants in aid of schools established for the education of the sons of Talookdars, and other landed proprietors were sanctioned at Seetapore, Rs. 3,000 ; Fyzabad, Rs. 3,000 ; Gondah, Rs. 2,400, and Pertabgurh Rs. 1,800. The number of boys attending the different Schools was :—

Seetapore,	...	...	...	41
Mahomdee,	...	...	...	72
Pertabgurh,	...	...	...	29
Fyzabad,	...	...	...	71
Gondah,	...	...	...	114

327

The attendance was very irregular. Besides the Talookdaree schools there were several vernacular, and, in the Lucknow Division, Tehselee schools.

PUBLIC WORKS.—Twenty-five lakhs were granted in the Public Works Budget for 1860-61, of which 19 were allotted to Military works. Several of the roads received extensive repairs. About 100 acres were cleared in the neighbourhood of the Stone Bridge Fort. A Railway from Lucknow to Cawnpore was projected. In Seetapore 42 masonry wells were built. The Road and Ferry Fund expenditure amounted to Rs. 1,86,185. Bridges of boats were maintained across the Gogra at Fyzabad and Byramghat, and one was constructed across the Goomtee in Sultanpore District. Post offices were established at all the Tehseels and the most important Police Stations.

Marine.—Only four steamers went up the Gogra during the year. The Chief Commissioner regrets that the exigencies of the State have hitherto prevented greater impetus being given to steam communication between Fyzabad and Calcutta.

Finance.—There was a very large reduction in the expenditure of the province during the year. The total receipts in 1859-60 were Rs. 4,48,67,393 and in 1860-61 Rs. 3,38,62,109, and while the receipts on account of remittances from other Go-

vernments were Rs. 1,41,82,211, the disbursements on the same account were Rs. 1,65,14,481, thus showing that the revenues of the provinces are more than ample to meet its charges.

Ecclesiastical.—The Churches at Lucknow and Fyzabad were completed. The Church at Seetapore was entirely built: those at Gonda and Roy Bareilly were advanced. The Protestant Churches of the province were consecrated by the Bishop of Calcutta during the cold season. A simple but neat Chapel for the performance of Divine Service was erected in Luckimpore by private subscriptions. It is under the management of the "American Episcopal Methodist Mission," but is available for members of the Church of England should a clergyman of that Church visit the station.

Political.—The most profound tranquillity prevailed throughout the province with the exception of the city of Lucknow, where it was rumoured that the trades tax had been collected with undue severity. Colonel Barrow, C. B., the Chief Commissioner, daily took petitions in person in order to exhibit to the complainants his desire to ascertain and remove all grievances. The *Oudh Gazette* published a libellous article upon extra-assistant Commissioner Ramdial, which that gentleman successfully resented in an action for libel. The Governor-General in Council also exonerated Ramdial, condemned the Police, and removed from their appointments two of the European officers. The former Goorkha possessions on the frontier were ceded to Nepal. Natives who had obtained licenses to possess arms were exempted from the operation of the Arms Act, but the Act is not yet to be entirely withdrawn. Primogeniture was made the rule of succession in great talookdaree families, but no restriction was placed upon the power of talookdars to dispose of their estates during their lifetime, or bequeath them by will, at their death, in any way and to whomsoever they please. Great success attended the bestowal of Magisterial and Revenue powers on certain great talookdars. The paucity of appeals from their orders and the few instances in which their orders were reversed or modified by the superior Courts, shew that their decisions were just and gave satisfaction. On the Revenue side the proportion of cases in which decrees were given in favor of tenants against the talookdars' agent, shews their impartiality and disinterestedness. Power to try Civil suits involving claims of value less than Rs. 100, was also conferred on the talookdars during the year. Early in the spring His Excellency the Viceroy paid a visit of a few days to Lucknow, and granted an audience to such of the Honorary Assistant Commissioners as were present in the city. A little

later in the year a deputation, comprising the most influential talookdars from all parts of the province, proceeded to Calcutta to present an Address to His Excellency the Viceroy, thanking him for the policy pursued by the Government of India for the Government of Oudh. The attention of the Talookdars and other wealthy natives was drawn to the measures being taken in the North-Western Provinces and the Punjab for the relief of the famine-stricken poor. The sum of Rs. 35,208 was thereupon collected, of which Rs. 30,910 were remitted to the Punjab. The high price of grain caused much suffering and distress amongst the lowest classes of the people; efforts were effectually made for their relief.

Military.—A reduction was made of one regiment of European Infantry and one Troop of Horse Artillery. No reductions in the Native Forces took place before the close of the year. The strength of the Military Forces in Oudh on 1st May 1861 numbered 11,341 of all ranks.

Miscellaneous.—The cession to Nepal of the territory skirting the Hills materially reduced the receipts on account of Forest revenues, and rendered it necessary to take steps for the preservation of the Forests still remaining within British territory. These Forests are still considerable, and contain valuable timber. The following is a Comparative Statement of the Receipts and Disbursements on account of Forests during the past two years :—

YEARS.	Collections.	Disbursements.	Net Receipts credited to Government.
1859-60	2,77,362 9 0	6,533 11 4	2,70,828 13 8
1860-61	91,439 5 9	6,575 6 11	84,863 14 10

The work of surveying went on during the year :—

District.	No. of Mouzahs entirely surveyed.	No. of Mouzahs partially surveyed.	Total No. of acres surveyed.	Cost of survey.	Average per 1,000 acres.
Pertabgurh ...	317	65	1,01,016	21,080	208.69
Oonao	444	94	3,94,964	30,976	78.42
Total ...	761	159	4,95,980	52,056	104.95

ADMINISTRATION OF THE POST OFFICE.

1860-61.

THE Report is submitted by G. Paton, Esq., Director General. Sixty new Post Offices were opened during 1860-61 against 26 the previous year. There were 914 Post Offices and Receiving Houses in all, viz., 271 in Bengal, 162 in Madras, 201 in Bombay, and 280 in the N. W. Provinces. There were 10 Inspecting Postmasters' Divisions in Bengal, 10 in Madras, 11 in Bombay, and 15 in the N. W. Provinces. The mails were conveyed 43,570½ miles in all, or 1,046½ by railway, 5,740 by mail cart and one horseback, and 36,784½ by runners and boats. The average cost per mile was Rs. 8-9-2, or Rs. 1-14-6 by foot lines, Rs. 15-15-4 by Horse lines, and Rs. 21-6-11 by mail cart lines.

The following table shews the *correspondence* in Bengal, Madras, Bombay, and North Western Provinces, from the year 1854-55 (when the new system, or ½ anna rate, of postage came into operation,) to 1860-61. The results of the years 1854-55 to 1859-60 were ascertained by calculation from the Returns of one month of each year, while those of 1860-61 have been ascertained from Returns for each month of the year :—

Presidency.	One year prior to the introduction of the 4 anna postage in 1854-55.	1854-55.	1855-56.	1856-57.	1857-58.	1858-59.	1859-60.	1860-61.
Bengal, ..	46,07,316	58,90,380	68,16,144	75,38,496	84,23,448	93,00,504	91,77,492	90,54,810
Madras, ..	89,54,564	54,66,672	57,07,464	71,29,044	77,73,720	81,08,191	82,64,857	89,37,423
Bombay, ..	35,11,056	68,04,260	71,01,768	87,09,828	1,16,07,168	1,51,45,272	1,29,78,684	1,23,75,436
N. W. Provinces,	70,09,740	1,11,86,288	1,26,76,584	1,38,83,052	1,45,03,644	1,84,24,068	1,73,67,072	1,67,09,741
Total ...	1,90,92,676	2,87,97,600	3,23,01,960	3,72,60,420	4,23,07,980	5,09,78,035	4,77,88,105	4,70,77,410

In spite of the falling off after 1859-60 ascribed to the withdrawal of European troops, this shows an increase of 9,816,990, or 26.34 per cent. over 1856-57 of 14,775,450, or 45.74 per cent. over 1855-56, and of 18,279,810 or 63.47 per cent. over 1854-55. During one month in 1860-61 of a total of 33,655,272 chargeable letters passing through the Post Office 19,589,424 were paid and 14,065,848 unpaid. In 1849-50

the chargeable letters passing through the Post Office in India were as follows :—

Paid Letters,	...	...	4,310,597
Bearing Ditto,	...	...	5,808,166

10,118,763

The chargeable letters in 1855-56 and 1860-61, when compared with 1849-50, have increased 132·53 per cent. and 232·60 per cent. respectively. If the result of 1860-61 be compared with that before the introduction of the low and uniform rate of postage, the increase will be 21,482,400, or 176·47 per cent.

The following Statement shows the progressive increase in the chargeable and Service covers, including newspapers, from 1854-55 to 1858-59.

2nd year 12·22 per cent.	In the United Kingdom
3rd Do. 14·82 Do.	the increase was as follows :—
4th Do. 13·45 Do.	1st year 122½ per cent.
5th Do. 23·22 Do.	2nd Do. 16½ Do.
	3rd Do. 6 Do.
	4th Do. 5½ Do.
	5th Do. 4½ Do.

The number of chargeable newspapers in each Presidency, is exhibited in the following Statement. It will be observed that the number had risen from one million five hundred thousand in 1854-55, to six millions in 1858-59. The falling off, which has taken place in the number of newspapers, is attributed to the reduction of European Troops in the country, the increase of charge on newspapers received from England *vid* Southampton, and the compulsory pre-payment on newspapers, especially as regards the Native Press.

PRESIDENCY.	One month prior to the introduction of the 4 anna postage in 1854-55.	One month in 1854-55.	One month in 1855-56.	One month in 1856-57.	One month in 1857-58.	One month in 1858-59.	One month in 1859-60.	One month in 1860-61.
Bengal	36,151	47,290	66,092	78,035	106,748	111,307	85,782	84,553
Madras	21,862	42,738	48,283	59,971	77,587	79,372	82,092	72,724
Bombay	35,810	40,629	45,583	65,654	97,135	167,819	107,123	92,657
North Western Provinces	32,564	60,144	83,494	84,324	128,420	143,500	123,672	103,623
Total	126,387	199,801	243,452	287,984	409,890	501,998	398,669	353,557
Estimates for one year,	1,516,644	2,397,612	2,921,424	3,455,808	4,918,680	6,023,976	4,784,028	4,242,684

The number of *official letters* largely increased, as is shown from the expense of one month in 1860-61. They were in that year 8,769,876 against 8,182,932 in 1859-60 and 4,293,660 in 1854-55. Service parcels also steadily increased, owing chiefly to the number of Stamps and Forms in connection with the Income

Tax and Budget system. The monthly average was 317,712 chargeable and 246,504 service. In 1860-61 the number of *books posted* in India was 219,540 and imported book post parcels 73,020 or a total of 292,560 against 268,596 the previous year, and 133,524 in 1854-55. The number of *registered letters* was 556,560 against 566,424 the previous year, and 224,052 in 1855.

District Post.—4,927,661 chargeable and service letters and newspapers and paid letters sent from thanna to thanna were sent through the district post in 1859-60, and 3,988,635 in 1860-61. The Report remarks “it cannot be doubted that the use of the District Post would be more extensive, if amalgamated with the regular Post Office.” The working of the *Dead Letter Department* was unsatisfactory. In Bengal the number of chargeable letters unclaimed or refused was 51,394, in Madras 27,454, in Bombay 42,859 and in the N. W. Provinces 137,882.

The Post Office Staff was 24,572 strong, of whom 5,148 were in Bengal, 4,900 in Madras, 4,197 in Bombay and 10,327 in the N. W. Provinces and Punjab. Of the whole, 1 was Director General, 5 Post Masters General, 46 Inspecting Post Masters, 838 Post Masters and Deputy Post Masters, 1,129 English and vernacular Clerks, 2,239 Post men and servants, 19,607 road establishment and 707 bullock train.

Complaints, &c.—There were 1,024 of which 432 were well-founded and 212 groundless. There were 71 cases of dishonesty on the part of the P. O. officials. There were 53 highway robberies.

Finance.—Postage labels were sold to the value of Rupees 15,99,347-5-4. Of these—

						Rupees.
$\frac{1}{2}$	anna	...	...	...	...	19,072,457
1	“	...	...	...	...	4,042,507
2	annas	...	...	...	...	1,212,376
4	“	...	...	...	...	1,572,553
8	“	...	...	...	...	347,970
$\frac{1}{2}$	anna envelopes	...	...	...	...	206,523
1	“	...	...	...	...	79,529
$\frac{1}{2}$	anna note papers	...	...	...	...	192,389
8	pie labels	...	...	...	...	223,803

The subjoined table shows in what proportion the postage receipts have increased as compared with the years 1853-54, 1858-59, and 1859-60,

	1853-54.			1858-59.			1859-60.			1860-61.		
Letter and Newspaper Postage,	17,37,743	0	5	8,89,131	11	5	9,08,706	3	0	9,16,121	5	6
Parcel Ditto,	2,55,127	2	6	3,36,852	0	8	3,26,966	5	0	3,07,444	4	7
Sale of Postage Stamp,	0	0	0	11,98,880	14		6,14,19,044	12	1	15,99,347	5	4
Total	19,92,870	2	11	24,24,864	10	7	28,84,717	4	1	28,23,212	15	5

The increase is Rupees 8,30,342-12-6, or 41·66 per cent over the year 1853-54, Rupees 3,98,348-4-10, or 16·42 per cent over the year 1858-59, and Rs. 1,38,495-11-4, or 5·15 per cent over the year 1859-60. This is partly attributed to the circumstance of half anna and one anna postage stamps having been used for four months, pending the preparation and supply of "Receipt Stamps" under the Act No. XXXVI. of 1860. The following Statement exhibits the gross receipts of the Post Offices in India, during the years 1859-60 and 1860-61, and includes the Bullock Train Receipts in Bengal and the North Western Provinces :—

PRESIDENCY	1859-60			1860-61			Increase			Decrease		
Bengal	9,41,214	11	0	10,82,757	5	8	1,41,542	10	8	0	0	0
Madras	1,85,879	10	5	5,04,866	0	0	18,986	5	7	0	0	0
Bombay	6,07,260	0	11	6,68,179	13	7	61,219	12	8	0	0	0
N. W. Provinces	19,86,280	10	2	19,47,004	8	1	0	0	0	39,276	2	1
Total	10,20,635	0	6	42,03,107	11	4	2,21,745	12	11	39,276	2	1

The official postage is estimated at Rs. 23,84,734-8-8. The disbursements were Rs. 50,22,015, or an increase over the previous year of Rs. 5,09,221-0-9, owing chiefly to the bullock train and mail cart. The gross receipts in 1860-61 were Rs. 42,03,107-11-4, the Indian share of steam postage due by London was Rs. 1,50,143-6-8, or a total of Rs. 43,53,251-2-0. Deducting Rs. 3,22,930-10-4 as steam postage due to London, the net receipts were Rs. 40,30,320-7-8. Deducting Rs. 50,22,015 of disbursements, this shows a deficit of Rs. 9,91,694-8-9. But allowing Rs. 23,84,734-8-8 for official postage there will be a surplus of Rs. 13,93,039-15-11.

REPORT ON INDIAN ADMINISTRATION— MARINE.

1860-61.

THE Report is signed by Captain J. G. Reddie, Officiating Controller of Marine Affairs.

The five sea-going steamers attached to Bengal were the *Fire Queen*, *Australian*, *Sydney*, *Arracan*, and *Nemesis*. The *Benfinck* and *Armenian* were formerly purchased on account of the imperial Government, but the latter was again sold. The sailing transports were the *Tabal Cain* and *Sesostria*. The surveying vessels were the *Krishna* and her tender *Minx* employed on a survey of the coast of Sumatra, and the *Mutlak* employed on the Coromandel coast. Three vessels were engaged for the conveyance of Troops to New Zealand. Fifteen arrived from England with troops conveyed at rates per head varying from Rs 91-10-8 to Rs 111-8-0 and 21 conveyed invalids and discharged men to England, at rates varying from Rs. 200 to Rs. 450.

The value of the vessels under the direct control of the Government of India was Rs 27,54,178, compared with Rs 29,26,015 of the previous year. The receipts of the Marine Department amounted to Rs 7,88,051-3-10, and the expenditure to Rs. 12,88,967-3-7. The excess over expenditure is Rupees 5,00,915-15-9; the result of indispensable outlay. This excess is balanced by the earnings of the Screw Steamers *Sydney*, *Australian* and *Arracan* while employed in the China Expedition, calculated at 15 Rupees per ton, which amounts to Rupees 3,19,848-6-2 as marginally noted. The excess of expenditure would then be reduced to Rupees 1,81,067-9-7. The Settlement of Port Blair was largely supplied with stores by the Store-keeper and other Departments, amounting in the year to Rupees 1,68,031-15-1.

ADMINISTRATION OF THE TENASSERIM AND MAKTABAN PROVINCES

1860-61.

THIS is the fifth Annual Report and is signed by Lieutenant Colonel Fyche, the Commissioner

Civil Justice.—There was an increase of 914 in the regular and miscellaneous suits and a decrease of 83 in the appeals. In 1860 there were 21,000 of the former and 754 of the latter.

Criminal Justice.—There were 5,629 persons arrested and brought to trial or 980 less than in the previous year; of these 3,703, or 69 per cent. were convicted, 1,752 acquitted, 24 died, escaped, or were transferred to other Courts and Jurisdictions, and 106 were at the close of the year, awaiting trial, or were committed to the Sessions. There were 4,649 witnesses examined, 3,870, or 83 per cent. of whom were in attendance one day. The number of appeals preferred from the orders of Assistants, British and Burmese, to the District Magistrate, were 68, 6 of which were rejected, 36 confirmed, and 26 modified or reversed. The appeals from the several Magistrates to the Commissioner were 24, 10 of which were confirmed, and 14 reversed. Before the Sessions Court there were for trial, 24 cases and 47 persons; of these latter 18 were acquitted, 4 commitments cancelled, 1 died under trial, 12 remained pending at the close of the year, and 12 were convicted and sentenced as follows :—

To death	...	...	1	person.
Imprisonment for life	...	...	5	"
Ditto „ 20 years	...	...	3	"
Ditto „ 14 „	...	...	3	"

Police.—The police establishment stood as follows.

	Number.	Cost. Rupees.
Interior Armed Police	221	25,280
Provincial Police	309	69,432
Karen Levy	95	16,751
Town Police	301	48,456
River Police	149	24,888
Mounted Company	13	3,240
Total	1,178	1,88,047

The total number of crimes and offences of every description ascertained to have been committed during the year is shown to be 3,454, and of this 3,006, or nearly 87 per cent. were brought to trial; of this number 695 cases were of a heinous

nature, and the remainder miscellaneous offences of a petty description, such as assault, and abusive language. 695 heinous crimes were committed in a population of 332,542 or 1 to 478, instead of 1 to 416 as in the previous year.

Jails.—The daily average number of prisoners was 2,279. The expenses per head ranged from Rs. 60-4-8 in Moulmein to Rs. 79-8 in Mergui. The ticket of leave, or convicts of the 1st class, allowed to live at large in the Town of Moulmein increased during the year to the number of 421. The total number of the Convict Artificer Company was 300.

Revenue and Finance.—The gross amount of revenue of every description in the Tenasserim and Martaban Provinces, for the years 1859-60 and 1860-61, was as follows :—

Tenasserim Provinces	{	1859-60	...	Rs.	11,70,003	6	10
		1860-61	...	"	14,25,961	8	10
		Increase,		Rs.	2,55,958	2	0
Martaban Province	{	1859-60	...	Rs.	3,64,768	14	1
		1860-61	...	"	4,17,334	14	1
		Total Increase for all Provinces,		Rs.	3,08,524	2	0

The disbursements for the year, which included all charges, except for Troops and Public Works, was Rupees 9,22,546-2-10, leaving a surplus of Rupees 9,20,750-4-1, or close upon one-half of the total amount of income. The revenue has increased 75 per cent. in 5 years.

The Land tax amounted to Rs. 5,15,331-13-7. The average proportion of cultivated area of land to population, including men, women, and children, is about 45-50ths of an acre per head, and the proportion of the total revenue to the total population Rs. 5 and 11-16ths; but the census of the population is not reliable. Of waste lands 8,884 acres were granted free of tax for certain periods.

The Capitation tax amounted to Rs. 1,69,455-8. The *Fisheries* yielded 6,634-6 more than last year.

Of Timber 3,339 British logs, 59,439 foreign logs, 1,448 pieces drift timber, 2,997 ship's crooks, and 1,061 boat crooks or 68,284 in all worth Rs. 1,91,215, were imported into Moulmein. The total collections on account of *excise* amounted to Rs. 3,85,604-1-6, an excess of Rupees 80,443-8-10 over the previous year. The following memo. shows the aggregate value of Imports and Exports and the Duty collected in the years 1859-60 and 1860-61 in the Port of Moulmein :—

YEARS.	Aggregate value of Imports and Exports.	Amount of Duty.
1859-60	1,08,97,026 15 9	1,15,392 10 2
1860-61	97,66,059 6 11	1,00,481 5 3
Decrease	11,30,967 8 10	14,911 4 11

There were in Moulmein 274 arrivals of ships and 255 departures with a tonnage of 154,951. Rs. 4,86,784 worth of grain was exported from Moulmein and Tavoy against Rs. 7,53,318 the previous year. The export of timber from Moulmein was worth Rs. 29,64,968 or Rs. 2,24,550 less than in 1859-60. The total amount of *Marine* receipts in the three Ports of Moulmein, Tavoy, and Mergui, for the year, aggregated Rupees 23,287-13-11.

Medical receipts were Rs. 1,54,480-6-8. The *Post Office* receipts were Rs. 11,267-13-6. The following was realised from Income tax.

Amherst	Rs.	35,000	7	9
Tavoy	"	1,179	9	0
Mergui	"	759	12	8
Martaban	"	3,663	12	0
Total, Rupees	"	40,603	9	5

The sale of *Stamps* realised Rs. 35,388-5-6.

Education.—Only Rs. 5,214 were spent on a Burmese and English School at Moulmein, under the charge of the Reverend Mr. Hough. Indigenous Schools are spread most plentifully throughout the whole of the Provinces; every Buddhist monastery contains a School, and it is a very rare thing to find a Burmese who cannot both read and write his own language.

Roads.—A line of road was commenced to connect the southern suburb of Mopoon with the fine forest and garden lands, along which runs the high road to Amherst and the sacred lakes. Old roads in the Town of Moulmein and the interior, which had been neglected for some years, were repaired and widened, and several small masonry bridges and some large timber ones constructed on them.

Post Office.—There were received 106,719 covers and despatched 89,099.

Political.—Upwards of two hundred families of Shans, containing about 700 souls, together with the Chief of their tribe, fled across the frontier into the Martaban Province, during the month of April from the Shan towns of Tsa-ya and Entay, tributary to Burmah.

Military.—The Report doubts if the reduction of troops has not been carried too far. The Frontier line of these Provinces extends for about 500 miles, bordering in part on the countries of Ava and Siam, and elsewhere under the sway of numerous Independent Hill Chiefs, who are in a chronic state of warfare among themselves, and ever ready for depredation on the Districts under British rule.

Population and other Statistics.—There were 2,015 European and other Christian emigrants, 205,377 Talien and Burmese; 24,042 Shans and Thounghthoos; 83,224 Karens; 4,351 Chinese; 1,058 Malays; 12,418 natives of India; and 57 Jews or a total of 332,542 on an area of 34,838 square miles. There were of live stock, 87,738 buffaloes, 10,438 bullocks and cows; 668 elephants and 956 ponies.

Agriculture.—The area of land under cultivation is 301,908, of which 236,978 is under Paddy. The average yield of an acre of rice cultivation is about 33 bushels, and the proportion of tax on gross produce is scarcely more than one-eighth. The profits derived from the growth of fruits and other esculents, and which are cultivated with great success, especially by the Chinese immigrants, yield as much as Rupees 50 to 60 per acre. The description of cotton grown here is almost all of indigenous growth (*Gossypium herbaceum*), and which reaches a very fair staple. The average produce of cotton in Amherst Province, for the last five years, is calculated as follows:—

YEARS.			Acres.	Maunds.
In 1856-57	...	...	325	1,398
" 1857-58	...	...	315	1,354
" 1858-59	...	...	379	1,628
" 1859-60	...	...	320	1,375
" 1860-61	...	...	211	907

An acre is estimated to yield about $4\frac{1}{2}$ maunds of cotton, value Rupees 15, and which, when corded, is sold in the Moulmein bazaars at an average of Rupees 24. The following quantities have been exported from Moulmein to Dacca, Tavoy, Mergui, and Arracan, but none has been sent to Europe:—In 1857-58, 112,828 lbs.; 1858-59, 202,158 lbs.; 1859-60, 192,602 lbs.; and 1860-61, 118,270 lbs.

The forest department realised Rs. 86,059-11-4, and the disbursements Rupees 12,724-0-2, leaving a surplus of Rs. 73,335-11-2. An area of about 25,000 acres was surveyed. 309 Europeans and 672 natives were admitted into the Moulmein hospital.

ADMINISTRATION OF MYSORE.

1860-61.

Civil Justice.—Of original suits 12,985 were filed, and 640 remained on the file at the commencement of the year. This gives a total of 13,625 to be disposed of.—12,977 were actually decided; as nearly as possible four-fifths being in favor of Plaintiffs. Only 648 remained for disposal on the 1st of May 1861, being no more than 8 in excess of the number that stood on the file for adjustment at the end of 1859-60. 5 per cent. of the suits were for landed and 94 per cent. for personal property. The amount litigated was Rs. 18,34,372. The number of appeals remaining at the beginning of the year was 140, which together with 1,276 filed makes a total of 1,416. A total of 1,350 were disposed of, which gives an excess over the number decided last year of no less than 164; leaving only 66 on the 1st of May as compared with a residue of 140 on the same date of the preceding year.

Criminal Justice.—The number of individuals brought to trial was 30,757, of whom 19,862 were convicted, or as nearly as possible 64 per cent. of the whole number. There were 15,089, cases of which 15,010 were disposed of. The following classification will shew that, were it not for the "petty offences," the criminal file would be a remarkable statement in a country the population of which is rapidly approaching a total of 4,000,000.

Crimes against the person	...	...	788
Against property	...	...	2,885
Miscellaneous offences	...	...	800
Petty cases	...	...	10,616
Total			15,089

The Police Force gave satisfaction. The number of prisoners in all the Mysore Jails at the end of the year aggregated 1,402. Of these 1,324 were under sentence. The average number remaining on the 1st of the month throughout the year was 1,647, and the average number employed in Road Gangs and in-door work was respectively 1,245 and 402. The mortality was 5·8 per cent. The average cost of a Prisoner was Rs. 4-2-0½, and the estimated average value of each individual's labour, as nearly as can be ascertained, was Rupees 5-10-0. 259 persons committed suicide, there were 1,009 accidental deaths, 63 were killed by wild beasts, and 24 were wounded, 142 wild beasts were killed.

Revenue and Finance.—The receipts were—

ORDINARY REVENUE.

Current.

Land Revenue	57,79,870	1	9
Sayer...	10,42,388	13	5
Punjab	10,07,722	5	8
Mohaturfa	3,81,495	8	9
Amroyee	29,665	13	3
Farms	79,729	3	10
Plough Tax	52,869	11	10

Rs. 83,73,741 10 6

ARREARS.

From 1854-55 to 1859-60 ... Rs. 8,86,096 9 7

Rs. 92,59,838 4 1

Extra Revenue 4,64,186 5 9

Recoveries of Tuccavy 3,949 13 3

97,27,974 7 1

Total Rupees ... 97,27,974 7 1

The disbursements were Rs. 84,89,399-2-7 being a surplus of Rs. 12,38,575-4-6, of which Rs. 2,73,428-10-1 were applied to public works and the rest added to the balance of last year.

His Highness' fixed stipend of Rupees 3,50,000 was paid as usual, which, together with his fifth share, amounting to Rupees 10,91,067-2-4, made His Highness' Income for the year Rupees 14,41,067-2-4. The subsidy of 24½ lakhs was paid by the usual regular monthly instalments to Her Majesty's Government, as also the rental for the Island of Seringapatam Rupees 50,000, making the usual total of 25 lakhs. The Report concludes with a statement that in spite of the indifferent season of last year, and notwithstanding the absence of those fortuitous circumstances which raised the Revenue of 1859-60 above a crore, the Income of the Mysore State for 1860-61 was the highest, with the above exception, yet realized. Previous to 1859-60 the highest Revenue realized since the assumption was 87 lakhs; in the above year it rose to 101, or exclusive of the refund from the Madras Government to 98½ lakhs; and in 1860-61, in spite of short monsoons, without the least pressure, the Revenue fell back only 2½ lakhs, being for the past year nearly 96.

Education.—Four new English Schools were established in Mysore. In two cases School accommodation was offered gratuitously by native gentlemen. Several Petitions were received praying for the establishment of additional schools, both English and Vernacular, and it is intended to open eight more schools as soon as qualified Teachers can be obtained. The number of pupils in the various schools aggregate 1,661; of these 1,116 are Hindoos, 205 Mohammedans, and 340 of other classes. The average daily attendance has been 1,324. The cost of the Education Establishment to Government has been Rs. 41,950-4-8, and the cost of educating each pupil who attended the Government Schools was Rupees 32-2-10.

Military.—The Mysore Horse and Foot, consisting of 7 Regiments of the former arm, and 4 of the latter, remained at nearly the same strength as heretofore—Horse 2,289, Foot 2,132. They performed Police and Escort duties in the Districts.

Agriculture.—The price of grain was high and in spite of a succession of indifferent seasons large tracts of waste land were taken up, and the number of Ploughs increases year by year. Coffee Gardens are increasing rapidly in number, and the Revenue under this head will be very considerable in a few years more.

Iron.—Iron to the extent of about one hundred thousand maunds was manufactured during the past year in Mysore; about 25,000 maunds was exported to Her Majesty's Territories. The estimated value of the Iron produced was about 2½ lakhs of Rupees, and the amount of the Furnace Tax was Rs. 13,112-9-0.

Medical.—There were nearly 96,000 individuals vaccinated during the past year, or about 1,500 more than the previous year; upwards of 91,000 cases are reported to have been successful. The average number of Vaccinators throughout the whole Province was 75. At the Hospitals and Dispensaries of the Mysore Government, situated in the Bangalore Cantonment, the number of patients treated last year rose to 15,032, or nearly 2,000 more than during 1859-60, and in the District Hospitals the number reached 7,074. Among the in-patients of the Bangalore Pettah Hospital, the deaths were scarcely more than 5 per cent., but in the Cantonment the average rose to 17 per cent. owing to a sudden outburst of cholera.

Mr. C. R. Saunders, Officiating Commissioner, who writes the Report, notices a circumstance which was deeply felt by all classes in Mysore, namely, the departure of Sir Mark Cubbon, who for 26 years had been Commissioner of the Province, and who was looked up to with the greatest respect and esteem by the whole population; the Natives themselves frankly admit that they scarcely comprehend the quiet manner in which so much material prosperity had been attained within the last quarter of a century. There was real sorrow throughout the country when the news of Sir Mark Cubbon's death reached Mysore.

THE SANITARIUM UPON MOUNT

PARISNATH.

Bengal Records, No. XXXVIII.

1861.

THIS selection of records consists of a series of papers relating to the formation of a sanitarium on Parisnath Hill, 66 miles along the Grand Trunk Road from the Railway terminus of Raneegunge.

The first paper of 43 pages is an account by A. P. of his visit to the hill, and of the Jain temples thereon in 1827. He describes its position. "Mount *Párswanath*, (vulgo *Parusmath*) the most remarkable place of *Janai* worship in India, forms the point of boundary between the provinces of *Kurreeklea* to the North, and of *Ramghur* and *Pachete* to the South-west and

South-east. From its summit, which I believe is the highest peak of land in the Eastern portion of our territories, the eye may range over a magnificent map of *Bengal* on the one hand, and of *Behar* on the other." The writer occupies himself chiefly with the origin and doctrines of the Buddhists and Jains. A long series of official correspondence follows between the Bengal Public Works officials, the Bengal Office and the Government of India. It begins on 5th August 1858 with a letter from Capt. C. B. Young to the Bengal Secretary forwarding a letter from Capt. Maxwell, Officiating Superintending Engineer 2nd Circle and the Superintendent of Embankments, suggesting that a sanitarium for European troops be established on the Parasnath hill. After receiving fuller reports the Lieutenant Governor authorises the Officiating Chief Engineer, as a preliminary step, to expend a moderate sum in improving the shorter of the two existing roads to the summit of the hill. The Commissioner of Chota Nagpore is requested to make some arrangement with the proprietors of the land. On 29th June 1860 the Public Works Secretary of Bengal reports to the Governor General in Council the steps taken for the establishment of a small sanitarium for convalescents.

Parasnath is the highest of the range of Hills separating Lower Bengal from Behar, through which the Grand Trunk Road runs. It stands off from the range on its South Eastern face, thus overlooking the plains between the valleys of the Damooda and Burakur rivers. Its summit is 4,624 feet above the sea; and the mass of the Hill overhangs the Grand Trunk Road from the 189th to the 198th mile-stone from Calcutta. The late Lieutenant Governor ascended the Hill in February 1855, but he was not favorably impressed with its capabilities for a Sanitarium. After a personal visit the present Lieutenant Governor was struck with the number and excellence of the building sites on the Eastern part of the Hill, which exceeded what he had been led to expect. The water is excellent, but it is believed not to be enough for more than sixty or eighty men. The beauty of the place, and the purity of the air, were remarkable. The Rance of Palgunge, sole owner of the hill, consented to cede any land that might be required, providing only that the Jain pilgrims be permitted as heretofore to visit all the shrines on the Hill, and that the shrines and temples themselves be not violated. The plan of restricting the buildings to the Western division of the Hill will avoid all difficulties connected with the shrines. The Governor General approved. Sites were accordingly cleared, a road cut up the Western side of the Hill and the foundation of a bungalow laid at an estimated cost of Rs. 50,000,

Barrack for thirty-three men	...	...	...	Rs. 15,000
Medical Officer's and Commanding Officer's double Bungalow	...	...	...	16,000
Road and paths to water supply, &c.	...	...	...	19,000

Owing to a remark of the Secretary of State that Parisnath, though of limited extent, appeared in other respects to be suited for a Sanitarium, that any remaining doubt on the subject would be cleared up if a few thatched tents were erected and occupied during the hot season, and that in the meanwhile no permanent buildings should be commenced, the Lieutenant Governor resolved to try the climate himself. Tents having been thatched for his accommodation, he left Calcutta on the 17th of April, and remained on the top of the Hill till the 20th May, when a fire accidentally breaking out destroyed the three tents, and compelled him to return to the Presidency. About the 31st of May the Lieutenant Governor returned to Parisnath, where he lived in unthatched tents, transacting business, till about the end of June; the rainy season having, for some weeks previously, set in, and very heavily. The results of these visits convinced the Lieutenant Governor that, so far as climate is concerned, no further knowledge of it can be gained, or is required. The Report is illustrated with plans and drawings.

REVISED SETTLEMENT OF THE GOOGAIRA DISTRICT.

1858

THE Report is made by Captain Elphinstone, Settlement Officer. The Googaira district in the Mooltan Division is situated in the Bacee and Rechnab Doab. It is bounded on the north by the district of Jhung, on the east by the district of Lahore, on the west by the district of Mooltan, and on the south by the river Sutlej, which separates it from the Wutto or Fazilke talooqah of the Sirsa district, and the independent territory of Bahawalpoor. The river Ravee traverses the district in its greatest length, with a course from east to west. The whole area amounts to 5,553 square miles, of which only 1,779 are included in village areas; the remainder is jungle, and belongs to Government. The population amounts to 3,08,026 souls, scattered in 1,446 villages, some

of which are so inconsiderable as to contain only six huts, and a single well. Googaira, the present head quarters, is a small place of no consequence. Pak Puttun and Kote Kumalia are towns of considerable repute.

When the Sikhs established themselves in this country, the management was made over to Dewan Sawun Mull of Mooltan, who followed his usual liberal policy of encouraging agriculture by inams and light cash assessments. The first settlement was made by Mr. Cocks, Assistant Resident, with no other data but the papers of the Kardars. The assessment amounted to Rs. 3,70,819 for the whole district, but it was not equally distributed, though in itself moderate. The second summary settlement was made in 1852 by Major Marsden, Deputy Commissioner, and he had good local knowledge, and the experience of the four years of the first settlement to aid him, as well as rough measurements: his assessment amounted to 3,23,099 Rupees. This settlement lasted till 1857, when the settlement under report came into force.

In February 1856 Captain Elphinstone received charge, and his final report is dated December 15th 1858. The settlement has therefore been in force more than three years, and the author has experience of its working. The new assessment amounts to Rs. 3,19,956-8-0, inclusive of jagheers, which have come under settlement. It is not easy to compare this amount with the former settlements, as the Abianah, or water-tax, has been excluded, and the jagheers have, for the first time, been properly assessed, so as to be acted upon. The number of pergunnahs,—which correspond with the tehseel divisions,—is five, of which three, Googaira, Hoojra, and Pak Puttun, and a portion of the fourth, Hurruppa, are in the Baree Doab: pergunnah Syudwalla, and the remnant of Hurruppa, are in the Rechnab Doab. The number is unusually large for so small an assessment, but the area is very considerable, and the cultivated spots much scattered. For purposes of assessment Captain Elphinstone divided each pergunnah into chuks, according to topographical features. In each of the pergunnahs we find the following chuks:—syalab, and well; and in three out of the five there are canal chuks. Only in one instance was there the further sub-division of classes, necessitated by a great difference in the value of some syalaba land.

The rates of assessment are as follows:—

		On total area.			On culturable area.			On cultivated area.		
Googaira,	...	0	6	0	0	6	3	0	15	10
Hoojra,	...	0	5	4	0	5	9	0	12	9
Pak Puttun,	...	0	3	1	0	3	7	0	13	5
Hurrappa,	...	0	5	1	0	5	4	0	14	4
Syndwalla,	...	0	5	3	0	5	9	0	11	1

In forwarding the Report Mr. Cust, the Officiating Financial Commissioner, says. " Captain Elphinstone remarks, that hereditary tenants are the creatures of our system : I may add that perhaps they are our greatest mistake. In the Googaira district, land is abundant, cultivators scarce ; division of the crops, none of which except cotton were superior, and tenancy at will, with constant flitting to and fro across the borders, were the normal incidents. Add to this, great uncertainty of season, most capricious rivers, untrustworthy canals, great poverty on the part of the land-owners, and a natural tendency to the wild and lawless state of pastoral life, and we may safely pronounce, that nothing but a light assessment would answer, as the landlord is more anxious to secure the tenant, than the tenant to keep the land. This is not a district of much promise ; it will never be a popular charge ; it falls far short of Lahore and Goojranwalla in agricultural capacity, and has not the advantages of situation, which distinguish Mooltan and Moozuffergurh. It is not, however, a district, which can be neglected with impunity. I must record my high sense of the services of Captain Elphinstone and of his revenue knowledge." On 19th September 1860 the Lieutenant Governor is pleased to sanction the Googaira Settlement for ten years, with effect from the date on which the new assessment came into force.

Captain Elphinstone's Report contains much interesting information concerning the tribes and tenures of Googaira. The people are either purely agricultural or pastoral. The former consist of the castes, both Mahomedan and Hindoo, which are generally met with throughout the Eastern Punjab, viz. : Arceens, Khumbohs, Hindoo Jats. The latter are almost entirely confined to the region which extends from the Southern extremity of the Mooltan district to within 30 miles of Lahore. They are all Mahomedans, and their favorite occupation is the breeding and grazing of cattle. They are locally known by the name of

Jats, in contradistinction to the more settled inhabitants, who call themselves ryuts, or subjects. The most important tribes are the Khurruls, Futtecanas, Moordanas, Khattyas, Vyneewals, Bughelas, Vhuttoos, and Joyas. Captain Elphinstone believes that the Khattyas of the present day have a strong claim to be considered the descendants of the same "Kathaioi," who so gallantly resisted the Macedonian conqueror. Their own account of their origin is, of course, far different. Like all Jats they take a particular pride in tracing their descent from a Rajpoot prince about the time of their conversion to Mahomedanism under the Emperor Akbar. Arrian, in his account of the Kathaioi, says their chief city was Sangala, in the Rechnab Doab, which Alexander reached on the third day from the Ravce, and where he found the Khattyas and their associates encamped on a fortified hill near the city. Now it is worthy of remark, that a place still retaining the name of *Sangala*, with a rocky mound of some elevation, and at the distance of about 35 miles from the Ravce, exists at the present moment in the Central waste of that Doab, and that, according to the tradition of the country, the neighbouring ruins of the town and fort of Shahkote, are the remains of a city built by Alexander the Great.

The tenures are simple, like the independent semi-nomadic life of the people. The *Zumindaree* tenure, which involves obedience to the elders of a Village, observance of local customs, and a generally pacific disposition, is by no means in favor with the Jat tribes, except in its most simple form, that of a Village belonging to a single proprietor. It prevails however among the Aracens on the Khanwa canal, the Khumbohs and Khuttries of Pak Puttun and Googaira. In form it does not appear to differ from the *Zumindaree* tenures of the North Western Provinces. The "Bhyachara" form of tenure is very common, and in great favor with the Jats. Each member of the brotherhood is in separate possession of his part of the estate. He only pays that portion of the revenue assessed on the land in his possession, and enjoys the whole surplus profits accruing from his property. The joint responsibility of members of a Village community, so prevalent in some parts of India, and now also introduced in this part of the Punjab, appears to have had no existence under the Seikh rule,—at least as regards this district. The pre-emption rules enforced by Government, have a most important effect in preventing strangers from entering Village communities. Cases in which questions of pre-emption were involved could only have been of very rare occurrence under the Seikh rule, as the distinctions between the several classes of the community were then more marked, and the Hindoo, for instance, would hardly have ventured to buy land in

a Village belonging to half-civilized Jats. Putteedaree estates are not numerous: their origin may be traced almost in every instance to the founders of a Village having been of different castes or tribes, and their descendants thus not having been able to amalgamate into a single community. The following shews the tenures and pergunnahs:—

Names of pergunnah.				Zumindaree.	Bhyachara.	Putteedaree.	Total.
Googaira,	...	...	...	94.	94	14	202
Syudwalla,	...	...	...	71	110	55	236
Hoojra,	...	...	...	323	58	55	436
Pak Puttun,	...	...	...	279	66	17	362
Hurruppa,	...	...	..	97	97	16	210
Total,				864	425	157	1,446

The distinction between hereditary and non-hereditary cultivators is a creation of our Government. Under the native rule, in this part of the Punjab, it was altogether unknown.

The staple crop is wheat, each acre producing an average of 12 maunds. Every village possesses a few cotton fields; but they are of small extent, and the produce appears only to suffice for local consumption. The well irrigation is carried on by 5,703 wells, of which 790 are kutchra, and 4,913 pukka. As the whole chahcecultivation has been ascertained to amount to 1,72,274 acres, the average extent of area irrigated by each well would be thirty acres.

The whole expenditure on the settlement amounts to Rupees one lakh fifty-two thousand four hundred and one, ten annas, and six pies, or nearly fifty per cent. on the jumma of the district. This may seem excessive, but the total cultivation of the district being 4,05,500 acres, and the expenditure Rs. 1,52,401, a rate of six annas and four pie, (Rs. 0-6-4) per acre is obtained, which, if the heavy cost of supervision be taken into consideration, will not appear excessive.

REVISED SETTLEMENT OF THE GOOJERAT DISTRICT

1858.

THE Revenue Survey was effected by Lieutenant Colonel Shortrede between 1853 and 1855. The Settlement was commenced by Mr. R. Temple in December 1852, he was succeeded by Mr. Prinsep in 1854, who was again relieved by Captain Hector Mackenzie, who brought matters to a conclusion in 1858, and furnished "an excellent report more than usually lucid and detailed."

This District consists of a narrow strip of land betwixt the Rivers Chenab and Jhelum, and comprises the Northern portion of the Chuj Doab, being separated by an arbitrary line from the more Southerly District of Shahpore. To the North are the lower hills of the Jummoo territory. One narrow strip has been separated since settlement from District Goojerat, and transferred to District Sealkote, and the River Tovey is now the boundary. The Publee mountains, which rise to the height of 600 feet, are the chief feature. Under the Sikhs, collections were made by division, or appraisement of crop; latterly something of a money assessment was introduced. Raja Goolab Sing had the entire contract of this part of the country, which for administrative purposes had been divided into Haqas and Zails. When the Punjab came under British management, in the name of the Durbar in 1846, a Summary Settlement was made by Major Lake mainly on the average payment of the preceding three years. At annexation in 1849 a second Summary Settlement was made by Mr. Melvill, the Secy. to Board of Administration, granting considerable reductions, and in 1852 a third Summary Settlement was made by Mr. Brand Sapté, the Deputy Commissioner, which granted great relief, removed inequalities, and on the whole worked well. The District is divided into three Tehseels, Goojerat, Phalian, and Kharian. For purposes of assessment the old Pergunnah, or Tehseel Divisions were distributed into 8 Chucks, each according to physical and topographical features. Upon these Chucks Revenue Rates were deduced, on dry and wet lands. A peculiar feature is, that in some Chucks of Kharian Pergunnah the people are pastoral as well as agricultural, the produce of cattle was taken into consideration, and a cattle Juma as well as a rate Juma applied to each village. The new assessment falls as follows:—

	<i>On cultivated area.</i>					<i>On total area.</i>		
Goojerat, ...	1.	3.	2.	...	...	0.	12.	2.
Phalian, ...	1.	2.	10	...	...	0.	6.	1.
Kharian, ...	1	0	5.	...	...	0.	5.	5.
For the whole District, 1.	2	2	...	...	...	0.	7.	2.

The last Pergunnah depends mainly on the Rains : the whole reduction of the Regular settlement after allowing for resumed Revenue free holdings does not fall short of twenty per cent. In Goojerat the new assessment came into force from 1857-58, and in the other two Pergunnahs from 1856-57. All Revenue free holdings were investigated : they were very numerous. Lands bearing a Revenue of 23,000 Rupees were released, independent of Jagheer villages.

Mr Cust, the Officiating Financial Commissioner, says "proprietary rights existed in this District beyond any doubt, but the Sikh Revenue system had crushed them, and while elevating unduly one of the body, had reduced the remainder to the level of mere cultivators. Hence arose difficult questions to decide. Capt Mackenzie enters into an able discussion on this subject, and the policy which he has adopted, though a new one is an eminently satisfactory one. The oppressive Sikh Kardar had reduced both proprietors and cultivators to the same miserable level, in many instances no doubt the Kardar had introduced the latter. No symbol of proprietary right had been reserved to those who by the voice of the country were considered the owners, and it was impossible after the lapse of years to enforce any rent, the cultivator who pays no rent, is "de facto" the proprietor, and Captain Mackenzie has wisely recorded him as such, but of a grade inferior to the ancestral owners, and with rights more limited, for clearly their property is confined to their actual cultivation, and they could have no claim to village perquisites, common land, or village office. I hail this solution of the difficulty, which encompassed the Tenant right question. Property without rent is a "caput mortuum" if you cannot restore it, it is better judicially to declare to whom it has passed, and not to allow the right to be in abeyance. Having thus eliminated those of the non-proprietors, who had encroached so far on property, as to cease to be mere tenants, the Settlement officer dealt finally and judiciously with the remaining tenants. To those who had a customary right of occupation, he secured that right and allowed them to pay in cash, but he reserved a twenty-five per cent. malikana on the Revenue for the proprietors, in-

cluding village charges. No variety of rate was allowed : the proprietor might waive his right in part, or whole, but it was recorded in full. With regard to the Tenant at will the power of ejection *at the proper season* was secured to the proprietor, supposing that there had been no written agreement between the parties."

On 21st July 1860 the Honorable the Lieutenant Governor sanctioned the revised settlement of the District of Goojerat, made by Captain Hector Mackenzie until the end of 1867-68, whom he declares to be entitled to great credit for the manner in which the operations have been conducted, and also for the very elaborate report which he has furnished. The Revenue of the District at Annexation and now, is compared thus :—

No.	SOURCE OF REVENUE.	IN 1849.		IN 1859.		
		Rs.	A. P.	Rs.	A.	P.
1	Land Revenue, ...	4,56,292	...	5,19,838	11	7
2	Excise on Spirits, ...	3,065	8 ...	2,924	...	...
3	Ditto on Drugs, ...	875	...	1,309	...	...
4	Ditto on Salt and Saltpetre (for 1857-58,) ...	...	...	510	...	...
5	Law Stamps, ...	1,718	12 ...	6,204	14	5
6	Post Office, ...	270	1 ...	983	10	9
7	Nuzzool Fund, ...	2,654	15 ...	2,827	4	9
8	Road Fund, ...	5,280	13 10	5,738	13	9

Sikh History of Goojerat.—Captain H. Mackenzie's report is full of interesting details as to the history and present condition of Goojerat. The earliest mention of regular Government in these parts, is the separation from the Province of Sealkote of a comparatively small tract of country under the name of Zillah Behlolpoor, on the right bank of the Chenab, which was made in the year 869 Hijree by the Affghan Emperor Behloul So'di. 146 years later (in 1015 Hijree), in the 34th year of the reign of the Emperor Akbur, the most part of the upper Chuj Doab was erected into Chukla Goojerat. The administration of the Delhi Governors would seem to have been generally good; the rights of the agricultural population were respected, taxation limited, and upon the

whole moderate. Money assessments were sometimes made, though their continuance seems generally to have been of short duration. Petty exactions, under a variety of pretexts, were numerous, but the system, irregular though it may have been, was perhaps not oppressive. Bad seasons sometimes laid waste the lands, but the people were not driven to desert their ancestral homes by the active tyranny of the Government. Then came the decay of the Empire, and the Punjab became the battle field for the Dorancees against the Moguls, and afterwards for the Sikhs against them both. At the mouth of the passes from Peshawur, on the road to the Capital, this section of the Chuj Doab was, almost without any respite, the prey of the advancing and retiring armies of Ahmed Shah Dorancee, from A. D. 1747 to 1767. At length Ahmed Shah's last retreat was made, and the Sikhs after a five months' siege, and the capture of the fortress of Rhotas, A. D. 1768, held firm hold of the upper Punjab from the Jhelum to the Sutlej. Their leaders at this time were Sirdar Churru Singh (grandfather of Runjeet Singh), and Sirdar Goojur Singh. After their conquest they divided the country between themselves. Both turned their attention towards the amelioration of the people, so greatly depressed during the 20 previous years. The Sikh rule, however, did not long retain its fostering character, and with the exception of Rajah Goolab Singh, few of Runjeet Singh's agents were otherwise than rapacious and oppressive. There were five kinds of officials who stood in the place of the Government, viz. the Provincial Governor or chief officer, the Jageerdar, the Kardar, the Ijaradar or Government lessee (who was not permitted to have subordinates of his own appointing), and the Thanadars. There were 47 Zails and 8 Ilaquas made when Runjeet Singh assumed the direct Government, by his astute ministers Khuleefa Noorooldeen and Faqueer Azeezooldeen. Wherever they found powerful or influential heads of clans, they propitiated them by the bestowal of Inams, and by maintaining their influence.

British History of Goojerat.—When we annexed the country we found these Zaildars forming rather a strong element of society. They had exercised much influence, and pretended to much more, and generally had assumed a position of rank above the mass of the population. Under our system, they have decayed, and their influence has declined. Goojerat, on coming under our rule, after many alterations of boundary, is now a compact block of the upper chief Doab, having an area of 1886 square miles, with its Sudder Station situated rather nearer the

upper than the lower boundary. It is from 48 to 72 miles long, and from 2½ to 37 miles broad. The District is distinguished by being the battle field of British conquest in the Punjab. Advancing from Lahore the British army, in 1848, first met the Sikhs at Ramnuggur, whither they advanced from their entrenchments at or near Jookaleean on the right bank of the Chenab, to meet us. Threatened on their left flank, they speedily retired, fighting as they went the battle of Sadoollapoor. The bulk of the British army then advanced to Hailan; the Commander-in-Chief with Head Quarters crossing the Chenab, encamped at Jookaleean; after a month's halt, a junction took place at Lassoree. The Sikhs were entrenched on the Southern spur of the Pubbee Hills, their left on Russool. The following day Lord Gough advanced to Dingah, the Khalsa descended into the plains, and the opposing armies met in the Jungles of Chillianwalla. Another month's halt and the Sikhs vanished from the opposite crest of the Hill, re-appearing at Goojerat. Striking our Camp we again marched to Lassoree, then to Koonjah, then to Shaddeewala; and the next day, leaving their tents standing round the City wall, as if certain of victory, and unappalled at the vast array (extending from Dheerkee to Adowal) opposed to, and about to overwhelm them, the Sikhs, after many fruitless attempts to bear up against our artillery, and a sharp struggle in the village of Kalra, lost the battle of Goojerat, and with it the kingdom they had won and consolidated 85 years before.

Statistics.—The population of the district, according to the census of the 31st December, 1854, corrected to correspond with subsequent alterations in the district territorial limits, amounts to 5,00,167 souls, or 265·2 persquare mile. Of the total 25,697 are male and 20,675 female agriculturists; 25,136 are male and 20,612 female non-agriculturists—all Hindoos. Of the Mussulmans 181,071 are male and 156,189 female agriculturists; 37,592 are male and 33,195 are female non-agriculturists. The percentage of Hindoos is 18·4, of Mussulmans 81·6 and of males 54·02. The result of the assessment was that 567,839 villages were summarily settled, of which 31,141 were Jagheer and 522,422 Khalsa. Three were found to be hereditary tenants occupying 60,467 acres and tenants at will occupying 66,505 acres—a total of 126,972 acres or 26 per cent. on the whole cultivation. In 1850 the proportion of crimes reported to population was 1 to 883, in 1856 it was 1 to 360, in 1857 it was 1 to 472 and in 1858 it was 1 to 451. Heinous crimes were very rife in the District, and between the character of crime of to-day and that of the first year of our rule

there is but little difference apparent. From annexation up to May 1852, no less than 5,026 Arms of all kinds, besides ammunition and accoutrements were taken from the population and confiscated. The expense of the settlement, omitting survey, was Rs. 2,20,482 or Rs. 15½ per village, Rs. 0-7-3 per cultivated acre, and Rs. 39-15 per cent. on the present jumma.

POPULAR EDUCATION IN THE NORTH-WESTERN PROVINCES.

1859-60.

THE General Statistics of Education in the N. W. Provinces for the year 1859-60 will be found at page 313 of Volume V. of the "Annals of Indian Administration."

Comparison between the State of Education in 1850 and in 1859-60.—In 1850 the system now in force was introduced experimentally into eight selected districts. Mr. Reginald Thornton's Memoir on the Educational Statistics of the North Western Provinces, published in 1850 and compiled from returns submitted by district officers, informs us, that in these provinces the number of boys attending School was under 75,000. The Schools were, for the most part, worthless; only here and there had any attempt been made to raise their character. In February 1860, 9,621 Schools in the North Western Provinces, excluding those in the Delhi Division, (which in 1850 formed a part of these provinces,) contained 151,112 boys, of whom 1,758 attended 8 Anglo-Vernacular Government colleges and schools, 4,168 were found in 37 Missionary schools, 15,109 in 257 *Tahsili* schools, 63,821 in 2,670 *Halkahbandi* schools, and 66,256 in 6,649 schools maintained by the people. In addition to the above, 7 schools supported by the Government and 10 by private parties were attended by 465 girls, while 3 Normal schools afforded instruction in 1859 to 628 teachers. The population of the districts composing the five Revenue Divisions of Meerut, Rohilkund, Agra, Allahabad and Benares, for which alone Census statistics are available, amounts (according to the Census Report published in 1854,) to 28 millions. Assuming one-tenth of the entire population to be boys of an age to attend school, the Edu-

cational Returns for 1859-60, show that one only 21·26 boys of the school-going age were at school. In 1849 there was probably not more than one in forty-four. Mr. H. S. Reid, the Director, says "I am unable to state how many boys who should be, but are not, at school have attended school for short or long periods. But their number must be very considerable, for I ascertained in 1853-54, that out of 39,355 boys at school in the eight experimental districts, 78 per cent. had attended under three years, and 50 per cent. under one year. I find that the Inspector D. P. I. Benares Circle states, that in his Division, 20,693 boys left school before the close of the year, when the number of boys at school amounted to 37,019. Assuming, on these returns, that 56, or say 50 per cent. represents the proportion of boys who have left school in the course of the year to those at school at the end of the year, we arrive at the conclusion, that in 1859 2,28,000 boys availed themselves for shorter or longer periods of the means of instruction afforded by the schools of the North Western Provinces."

Normal Schools.—The three Normal Schools at Meerut, Agra and Benares cost in 1859 Rs. 33,307-5-1. They turned out 628 teachers at an average cost per man of Rs. 53-0-7. They afforded more or less general and technical instruction to 1514 teachers and candidates for teacherships at a cost of Rs. 80,594-4-5. The results are stated by Mr. Inspector Cann. "In my tour of inspection, I have been careful to observe the effect of this training institution upon the Tahsili and Halkabandi schools. As a general rule, I have found what might be expected, that the schools conducted by a trained teacher are incomparably superior to others. Indigenous teachers who take Government employ in Tahsili or Halkabandi schools may be,

and are, much improved by the directions of the *Hodáyatunnah*, the advice of Deputy Inspectors, and the possession of suitable books, but I have met with but few of them who, in gaining the knowledge requisite for a teacher, have acquired the art of imparting it to their pupils." Major Pearson bears similar testimony. "I found in several cases a marked distinction in those schools where the teacher has gone through a course at the Normal School."

Expenditure—The total amount expended on education in the N. W. Provinces by Government may be thus summarised:—

	Salaries	Scholarships	Buildings	Contingencies and Books	Grant in aid	Total
<i>General Establishments</i>	152951 3 8			25535 13 4		151447 1 6
<i>Government Colleges</i>	General, 178100 2 7	11522 0 0	1369 12 7	25534 4 7		219566 3 9
	Special, 55754 0 2			3171 2 3		75925 2 5
<i>Private Colleges</i>	General,		1500 0 0	671 3 1	17405 0 0	19576 3 1
	Special					
TOTAL.	405905 6 5	11522 0 0	5809 12 7	59172 7 3	17405 0 0	499814 10 3

POPULAR EDUCATION IN THE NORTH WESTERN PROVINCES.

1860-61

THE Report, like its predecessor, is submitted to the Lieutenant Governor by H. Stewart Reid, Esquire, C. S., Director of Public Instruction. The income-tax, the effect of disarming the people, and the famine, retarded the progress of education. The feelings of uneasiness and distrust, to which the startling incidents of 1857-58 had given birth, still prevailed far and wide. The largest results were obtained, where the schools were taken up by the District Authorities.

Statistics—In 1847 after nearly half a century of profound tranquillity in the territory under the Government of Agra, 70,000 boys were under instruction in formal Arabic, Persian, Sanskrit and Vernacular schools. The Government had, up to that time, been content with establishing some few Anglo-Vernacular Schools and Colleges, and had left vernacular education entirely in the hands of the people. Eight years later, that same territory was the scene of universal rapine and disorder, and yet the village communities could not have been so generally disturbed, for in the Inspector's returns for April 1857 and for April 1858 the number of schools was recorded at 6,418 and 5,069, and of scholars at 97,108 and 58,693 respectively. In other words, though the attendance had fallen off very considerably, nearly 80 per cent of the schools had been kept up throughout the year of anarchy, or re-opened or re-placed by others, as soon as tranquillity and order were restored. In 1860-61, in the face of difficulties the department gained ground. Against 9,641 schools and 1,52,210 scholars in the returns for the preceding year, the present year's statistics shew 10,086 schools, containing 1,74,689 boys. In the Anglo-Vernacular Colleges and Schools, the number of students rose from 1,576 to 1,760. English classes were opened in four Tehseelee schools, at a cost to Government of Rs. 60 *per mensem*. The number of boys reading English in schools under inspection may be calculated at 3,987 in 1860 to 3,992 in 1859. In the course of the year three Normal schools at Agra, Meerut, and Benares sent out 565 Tehseelee and Village Schoolmasters, more or less instructed.

Anglo-Vernacular Instruction—The English and Vernacu-

lar languages were taught in the Colleges of Agra, Benares and Bareilly and in the Schools of Ajmere, Saugor, Allyghur, Pilibheet and Shahjehanpore belonging to Government, and in Christian Mission Schools at Agra, Benares, Goruckpore, Ghazee-pore, Chunar, Almorah, and Nynce Tal, in the Etawah High School, and in some of the Tehseelee schools. They are attended by 3,919 students, of whom 1,130 read the Vernacular only; 86 boys read English in the Tehseelee schools at Etah, Araya, Phaphoond, and Jusswintnugger. In the college department at Agra, Benares, Bareilly, Ajmere and Saugor there were 67 students. The average daily attendance in these 5 was 1,311, the total Government expenditure on them was Rs. 1,51,510-2-7 and the cost of educating each pupil to the state was Rs. 115-0-9. The aggregate expenditure amounted to Rs. 1,67,042-4-2, and the average cost per boy to Rs. 126-12-6.

Employment of Students—Thirty-seven students left the Government Anglo-Vernacular Colleges and Schools on obtaining employment, on salaries ranging from Rs. 6 to 100, averaging Rs. 27, and aggregating Rs. 994 a month. Thirty-five students of the College Department went up to the *Calcutta University* Examination in December and ten passed. There were in the three Colleges and the Ajmere School, 21 Under-graduates of the Calcutta University, reading for the B. A. examination. The *Agra College* maintained its popularity under Dr Anderson. Notwithstanding the removal of the seat of Government to Allahabad, the attendance steadily increased. In March last there were 410 names on the roll, to 389 at the close of 1859. Of the *Benares College* the Principal, Mr Griffiths who succeeded Dr Ballantyne, reports, that the year was one of progress. The number of pupils increased from 417 to 470. The receipts from entrance and tuition fees increased from Rs. 2,029-8-0 to Rs. 2,409. Of the Anglo-Sanskrit department the Director says:—"It is strange to hear the Pandit explaining in Sanskrit difficult passages in (*cc g*) the "Pleasures of Memory." The purely Sanskrit Department will, I hope, soon disappear *into* the Anglo-Vernacular. The change, in place of lowering, would eventually raise the standard of Sanskrit scholarship. At any rate, we must look to the interests of India rather than to the savans of Russia and Germany." Mr. Kempson attempted, with considerable success, a commencement of the boarding-house system in the *Bareilly College*. In September he established a boarding-house for district students in a confiscated tenement, well suited to the purpose in the immediate vicinity of the College. This was placed under the charge of the head native teacher attached to the

College, Pundit Kedarnath, and he and his family at once took up their residence therein. The matter turned out well in every respect; it was the subject of talk in the district, and cannot fail eventually to become popular. Mr. Kempson had numerous applications from district schoolboys for scholarships, with leave to reside in the boarding-house; but leaving out the question of scholarships, which of necessity must be limited in number, he ruled that no district student will be admitted who is above the age of 14 years, or who cannot produce a certificate from the Deputy Inspector to show that he has been at least one year at the school and has borne a good character; if, on the other hand, he can satisfy these qualifications, he is admitted as a free student with lodging gratis. Mr. Kempson recommends the introduction of technical studies such as elementary law, to fit the students for state employment. The Government school at *Ajmere* contained, in December 1860, 162 students to 177 in December 1859. The fees were raised in the Saugor School, from $1\frac{1}{2}$ annas to 4 annas monthly the Director remarking. "It is preposterous that parents should pay for each boy only twopence a month, when the school costs the State £2,000 a year. Three-halfpence a week is not an exorbitant demand under the circumstances." The schools at *Pilibheet* and *Shahjehanpore* are on the same footing. The head masters are native gentlemen. The three schools are maintained by the Government at a cost of Rs. 7,200 *per annum*. They are attended by 281 boys, and afford instruction in the elements of English and the Vernacular languages, Arithmetic, Algebra, Geometry, History and Geography. The average cost to the Government of each boy amounts to Rs. 25 a year. It was decided that Senior *Scholarships* only on University Under-graduates. The total value of the Scholarships sanctioned for 1861 amounts to Rs. 907 *per mensem*, or Rs. 10,884 *per annum*.

Normal Schools.—The Director reports, after a personal examination of the Normal Schools at Agra and Benares. "They are still under the admirable management of Mr. Sharpley and Mr. Tresham, and I had every reason to be satisfied with their condition, and the progress effected during the past year, in the course of which the Normal Schools at Agra, Benares, and Meerut turned out 565 teachers, of whom 113 gained first class, 270 second class, and 182 third class, certificates. Through their means the Village Circuit Schools are supplied with teachers, competent to carry their pupils through the simple and elementary studies prescribed. Without their assistance the establishment of Village Schools, on a large scale, would be hardly possi-

Tahsili Schools.—In March 1861 there were 271 Tahsili Schools, with an attendance of 16,590 boys. Between 1st May 1860 and 28th February 1861, the total amount expended by the Government was Rupees 29,567, being at the rate of Rupees 35,480 per annum. The cost to the State of each boy's schooling may be put down at Rs. 2-2-3 a year. They suffered largely from the famine. In examining large assemblies of village school boys, it was distressing to witness the emaciated appearance of many, and to learn, upon enquiry, that their parents could only afford them a meal once in two days, and that frequently consisting wholly, or in greater part, of the most miserable description of food, such as *bathua* leaves, or the thorny seeds of the *gokhrā*. In Ajmere and Mairwara, education makes but slow and painful progress. Civilizing influences are weak and few. The Mairs indeed owe their reclamation from savage life to the zeal and devotion of Colonel Dixon, who but lately passed away from among them. Funds are wanting, and the teachers are uneducated.

Hulkahbundi Schools.—The Director thus pictures the educational destitution in the N. W. Provinces for which the village circuit school system is meant to be a remedy. The Government Colleges are one to some 35,000 square miles of area, while there are 5 Anglo-Vernacular and 271 Vernacular Government schools, among 33 millions of souls. In other words, Government education does not, and cannot, except at an immenso cost, be made to reach the mass of the people. In 1847, there were in these Provinces almost as many villages as boys at school. Even at the present day there are hardly twice as many scholars as villages. When the fact is stated, that there are many towns and cities in these Provinces containing schools attended by from 1,000 to 3,500 boys, and that the aggregate attendance is not above 1,70,000, while the N. W. Provinces contain between 90 and 100,000 villages, the assertion that there are large tracts of country without a single school will be credited." The existence of the Hulkahbundi Schools depends on the contributions of the agricultural classes. In the first and second Circles consequently, in which the famine was most severely felt, the increase in the number of schools and scholars amounted only to 83, and 6,489, while in the 3rd Circle, where plenty reigned, schools increased from 721 to 935, while the attendance rose from 16,154 to 29,276. The average attendance per school, which for the whole North Western Provinces is 21·6, ranges from 4·7 in Seonee to 42·8 in Etawah. In 1860-61 there were 3,086 schools and 84,723 scholars. The schools are supported by a one per cent. cess upon the land tax. Mr. Griffiths, the Inspector of the 3rd Circle, says, "the bulk of Hulkahbundi scholars are agri-

culturists (20,722) ; their time is most precious to their parents, and when the mangoes are ripe, or the crops are being stocked, on no account can they be spared ; nay, each family has some cattle, and each family must send a child to look after them, and the more so since pounds have been introduced in these Provinces. The agriculturist boys are temporary visitors, and they flock to our schools periodically, and as the average is struck for the whole year, it must be a low one for the Hulkahbundi schools, if they are reported truly, till people value education more than food and necessaries of life." The total annual cost of educating each pupil is Rs. 3-1-6, and to the Government $4\frac{1}{4}$ annas against Rs. 3-7-2 and $5\frac{1}{2}$ annas of the last year.

Indigenous Schools.—Nature of the Schools.—Under this head are included all schools maintained by the people, and receiving no pecuniary aid from the Government. They are inspected by the Educational Officers of Government, by whom deserving teachers and scholars are rewarded. The efforts made for their improvement are seldom successful. The larger proportion are located in towns and cities. They number, in the North Western Provinces, 6,435 with an attendance of 65,112 scholars. In the 3rd (Benares) circle the average annual cost per boy is calculated at Rs. 4-10-4. Last year it was put down at Rs. 5-8-3. The total number of boys attending popular schools in that division is made up as follows :—

English Scholars, ...	...	66
Arabic and Kuran, ...	...	1,046
Persian, ...	...	5,982
Urdu, ...	...	724
Sanskrit, ...	...	4,864
Hindi, ...	...	4,695
Bengali, ...	...	59
Marahti, ...	...	12

Female Schools.—Of the schools established in 1859 in the Agra district, under trained mistresses, there were 11 at work under respectable female teachers, who had been taught to read and write by Thakur Kulyan Singh and his relatives. The attendance of girls then aggregated 205, and averaged 18·6 per school. The teachers (nine out of eleven) were chiefly *Jats*, and belong to influential families. The girls too were of the same class. They came from villages 9 and 10 miles distant to be examined. Some of them were able to read and write, and knew a little arithmetic. The Lieutenant Governor personally examined them and bears testimony to their success. Major Pearson, Inspector in the Agra circle, reports. "Only 8 schools with 146 girls had been established at the close of the last official year. There are now 15 schools with 260 girls, and the mis-

tresses are ladies, principally related to the family of Thakur Kulyan Sing." The Director confidently affirms, that if sufficient funds were provided and reasonable time allowed, girls' schools under respectable female teachers might be opened in every district in the North West. He adds—"the establishment in 100 Tahsils of girls' schools on Rs. 7 per mensem, (the parents also contributing three Rupees,) would entail a monthly expenditure of Rs. 700, an outlay far from excessive, if the importance of the object be taken into account. The Government cannot reasonably expect the people to take the initiative; the system to be universal, must be *started* by Government in every district."

Grants-in-Aid.—Under the head of grants-in-aid of education, Rs. 16,649-8-0 were disbursed in 1860 to the following Educational Institutions, attended by 1,515 boys and 120 girls.

Mission School,	...	...	Almorah.
Ditto,	...	...	Nainee Tal.
Saint John's College,	...	...	Agra.
Saint Peter's College,	...	...	Agra.
Mission School,	...	...	Goruckpore.
Ditto,	...	...	Ghazeepore.
Ditto,	...	...	Chunar.
Church Mission Female School,	...	...	Benares.
Jay Narain's College,	...	...	Benares.

Abstract of Grants-in-Aid received by private Institutions, during the year 1860-61.

	Colleges.	Superior Schools.	Inferior Schools.	Total.	REMARKS.
General Education,	10,377 8 0	5,192 0 0	1,080 0 0	16,649 8 0	
Special Education,	0 0 0	0 0 0	0 0 0	0 0 0	
Total ...	10,377 8 0	5,192 0 0	1,080 0 0	16,649 8 0	

The Director urges the extension of the Grant-in-aid system, on the grounds that it was ordered by the Despatch of 1854, that it is economical, and that it will hasten the time when Government may sever its direct connexion with its own colleges. In the following tabular statement is shown the average cost to the Government, per student, at the two principal Government Institutions, and the two largest Institutions which receive a grant

from the State, studies of the same nature being pursued in all four colleges.

NAME OF INSTITUTIONS.			Average cost to the Government per student.	
Government College, Agra,	...	...	115	12 6
Ditto ditto, Benares,	...	...	148	3 7
Saint John's College, Agra,	...	...	13	10 2
Jay Narain's College, Benares,	...	...	17	5 9

The Expenditure in 1860-61 was Rs. 4,47,957-14-2 as follows :—

Directors and Inspectors with their offices,	Rs.	95,740	10	6
Deputy and Sub-Deputy Inspectors,	...	72,590	2	5
3 Government Colleges,	...	1,20,172	2	7
5 Anglo-Vernacular Schools,	...	44,004	14	1
3 Normal Schools,	...	35,774	13	8
Tahsili Schools,	...	35,592	14	5
Female Schools,	...	1,525	0	0
Grants-in-aid,	...	16,649	8	0
General Contingencies,	...	16,159	10	5
Contingencies of the Colleges and Schools from local funds,	...	9,748	2	1

Assuming the population of the North Western Provinces to be 33 millions, the expenditure per head is 2-6 pies a year, (1-25 farthing in English currency) This can hardly be styled a lavish expenditure, though it is the fashion with some to insist, that much money is wasted by the Government in the attempt to educate the people. Perhaps the results attained are as great as that expenditure can be expected to produce. The agricultural population contributes Rs. 1,90,000 a year for the maintenance of schools, which are under the direction of the Educational Department. The popular schools are maintained at a cost of Rs. 2,65,000 *per annum*. This large expenditure is to a great extent a mere waste of funds, owing to the ignorance of the teachers, and the want of all system and combination. As far as the Director was able to ascertain, Rs. 69,000 were expended during the past year on Missionary Schools and Colleges.

Publication of Government School Books.—From the 1st May 1860 to the 30th April 1861, the sanction of the Government was given to the publication of 63 Vernacular books, at a cost of Rs. 50,939-8-10. The number of copies amounted to 2,44,983.

*General Statement of amount expended by Government on Education, during the
year 1860-61.*

	Salaries.	Scholarships.	Buildings.	Contingencies and books.	Grants-in- aid.	Total.
General Establishment,	167130 11 10.	0 0 0	0 0 0	27524 7 6	0 0 0	194655 3 4
Government { Colleges and Schools, ... { Special,	176484 3 0	12897 15 0	1178 4 10	15140 8 10	0 0 0	205700 15 8
Private Col- { leges and Schools, ... { Special,	0 0 0	0 0 0	0 0 0	4129 15 3	0 0 0	84011 3 2
	0 0 0	0 0 0	0 0 0	290 15 11	17405 0 0	17695 15 11
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Total, Rs.	423496 2 9	12897 15 0	1178 4 10	47085 15 6	17405 0 0	502063 6 1

The Deputy Inspectors, allowed a discount of 25 per cent., sold 1,37,118 books, of the value of Rs. 22,885-11-0. The sale would have been very much larger, had the books for which they indented been all ways available.

The General Results are summed up by the Director. The attendance at the Government Educational Institutions of all grades and descriptions has increased; and that even in Circles composed partly of districts, which have been the greatest sufferers from the famine. The Government Colleges have been brought into closer connection with the Calcutta University. The character of the instruction imparted in the Anglo-Vernacular Schools has improved. The Normal Schools, maintained by the Government, have trained and sent out a considerable number of teachers, competent to take charge of Village School. Village Schools, directly under our management, have multiplied, so much so, that the boys attending them numbered at the close of the year 84,723. In the course of 1860 the Colleges and Schools under inspection have imparted instruction for periods of twelve months and under to 2,50,000 boys. Female education has progressed steadily and satisfactorily, within the limited area, within which it has been experimentally attempted. The publication of School Books (of which 4,04,000 copies have been issued,) has been carried on. The Schools maintained by the people as well as those supported by the Government have been systematically visited by the subordinate inspecting agency. In many places the people have combined to subscribe the funds requisite to secure the services of an English teacher. The Educational operations of the Government are no longer viewed with distrust, the assistance rendered by the State is not seldom thankfully accepted.

PUBLIC INSTRUCTION IN MADRAS

1859-60.

THE Report is drawn up by A. J. Arbutnot, Esq., Director, and reviewed by Government only on 18th June 1861. The General Statistics of University students, schools, scholars and cost will be found at page 254 of Volume V of the "Annals of Indian Administration."

In 1859-60 the number of schools connected with Government was 472 with an attendance of 22,713 pupils, the average attendance throughout the year being 22,114. The expenditure from the Public Treasury was Rupees 4,93,513-1-8, under the following heads:—

Pupils.			
<i>Government Schools</i>	...	141	8,883
<i>Private Schools under Inspectors</i>	...	331	13,830
Total	...	472	22,713
Director's Office	...	Rupees	41,723 12 4
Inspectors and Deputy Inspectors	...	,	82,548 11 5
Government Colleges and Schools	...	..	3,13,015 14 11
Grant-in-aid of Private Schools	...	..	31,625 3 7
University of Madras	...	..	6,462 0 0
Printing, preparation and purchase of			
School books, minus proceeds of sale	..		16,137 7 5
Annual grant to the Madras School			
Book Society	...	..	2,000 0 0
Total Rupees	...	4,93,513	1 8

The Presidency College made satisfactory progress. " Its superiority over all educational institutions in this Presidency—a superiority which, considering the amount expended on it, is not more than should be expected—was abundantly established. The fee demanded, small as it is, Rs. 2 per mensem, is higher than that demanded at any other place devoted to Native education in this Presidency. The College still continued to be a collegiate school, 227 of the pupils belonging to the junior or school department "

Normal Schools—The working of that in Madras is pronounced to have been decidedly satisfactory. At the annual examination eleven students of the Normal class proper passed the examination for Certificates as Teachers, as well as six students of the Vernacular Normal class. The Normal Schools at Vellore, Mayavaram and Chéyur worked on steadily through the year. Thirty-three students qualified for Certificates as Teachers, and at the close of the year, fifty-four remained under training. The teachers are of three classes. Those who possess a good knowledge of their vernacular an elementary knowledge of English ; the whole of arithmetic, some algebra and geometry, the outlines of geography and of the histories of England and India ; and a practical knowledge of the art of teaching and of school management. Those who obtain certificates of the 8th grade, for which no English is demanded, while in the other subjects, the requirements are somewhat lower ; and those who obtain certificates of the 9th grade, the examination for which is limited to the elementary prose readers in the vernacular language of the district, the first four rules of arithmetic, simple and compound ; with a knowledge of the maps of India and of the World,

and of a little work entitled "Brief Sketches of the History of Asia."

Provincial and Zillah Schools :—

Names of Schools.	Number of pupils on the Rolls.	
	On the 30th April 1859.	On the 30th April 1860.
Combaconum	281	236
Calicut	216	236
Bellary	252	216
Chittur	160	179
Cuddalore	235	235
Salem	141	181
Madura	185	209
Rājamandri	104	168
Cuddapah	89	86
Berhampūr	130	102
	1,793	1,848

Five schools were established under the designation of Anglo-Vernacular schools, at *Chicacole, Karnul, Adoni, Anantipur* and *Malapuram*, of a grade intermediate between the Zillah and Taluk schools.

Anglo-Vernacular Schools :—

Name of School.	Name of District.	No. of pupils on the rolls on the 30th April 1860.
Chicacole	Ganjam	70
Karnul	Karnul	64
Adoni	Bellary	33
Anantipur	Bellary	63
Malapuram	Malabar	27

Taluk Schools :—

Name of District.	30th April 1859.		30th April 1860.	
	No. of schools.	No. of pupils.	No. of schools.	No. of pupils.
Ganjam ..	5	149	6	132
Vizagapatam ...	5	178	5	113
Rajamandri ...	8	481	8	550
Masulipatam ...	3	105	4	120
Guntur ...	1	29	...	...
Nellore ...	4	95	1	24
North Arcot ...	3	230	3	282
Madras ...	5	387	5	349
South Arcot ...	8	410	8	351
Salem ...	3	187	4	236
Trichinopoly ...	2	121	2	138
Coimbatore ...	1	17	6	228
Tanjore ...	7	340	7	315
Madura ...	5	206	4	186
Malabar ...	5	105	4	115
Canara ...	3	66	4	151
	68	3,106	71	3,290

These schools seek to impart a good scholar-like knowledge of the vernacular language of the pupils, a fair acquaintance with the English language, a good knowledge of Arithmetic and of the elements of Geometry and Algebra, a fair knowledge of General Geography and of the leading facts of the histories of India and of England, and some acquaintance with the outlines of Astronomy and the leading principles of Political Economy. The returns show that the English language was taught in 62 out of the 72 schools in operation at the close of the year ; the number of pupils under instruction in it being 1,701 out of 3,335.

The *Madras-i-Azum* was established by the late Nawab of the Carnatic for the instruction of the Mahomedan population of Triplicane, and on his death, was maintained as a Government Institution. The Madrasa was opened on its new footing on the 1st May 1859. A roll of 242 pupils, with an average attendance of 231 throughout the year, cannot but be considered a very satisfactory result of the first year's operations.

Grant-in-aid System.—The aggregate expenditure was less than in the preceding year.

In 1858-59	...	...	...	Rs. 46,354	13	2
In 1859-60	...	...	...	Rs. 31,625	3	7

The number of schools aided, or, for other reasons, subject to inspection, was 331, with an attendance of 13,830 pupils. Of aided schools under European management, there were 203 mission and 15 other Schools, with 9,580 pupils in the former and 952 in the latter. The former received Rs. 18,659 and the latter Rs. 4,515. Of aided Schools under native management there were 113, with 3,298 pupils receiving Rs. 4,024. Sir Alexander Grant says—"The grant-in-aid system will serve to some extent as itself an education in self-government for the people."

The Schools for Barkaga on the Neilgherry Hills had 210 pupils against 115 last year. They are supported by the Evangelical Mission of Basle with the aid of a grant. At the examination of candidates for certificates as teachers in July 1859, 266 candidates presented themselves, of whom 134 passed. Of the passed candidates, 91 were teachers employed in private schools.

Books sold:—

	In 1858-59.				In 1859 60.			
	No.		Value.		No.		Value.	
			Rs.	A. P.			Rs.	A. P.
English	...	17,785	12,058	11 2	24,880	10,858	12	7
Vernacular	...	81,293	6,744	7 9	38,108	9,379	7	7
Total	..	49,068	18,803	2 11	62,988	29,246	4	2

An Examination of Candidates for the Uncovenanted Service

was held in March. So many—3,372—flocked to it that the results were untrustworthy and a second examination was ordered. It was resolved to exact a fee of Rs. 3-8 from each candidate. It was directed that the instruction of the minor wards shall be brought under the supervision of this Department, and that the Court of Wards shall make such arrangements for the education of each minor as may appear to them, in conjunction with the Director of Public Instruction, to be best adapted to the circumstances of each case.

Medical College.—The detailed report on this College is analysed at page 152 of the "Annals," Volume V.

Civil Engineering College.—At the first examination held under the new rules, 106 candidates presented themselves—70 Civil and 36 Military,—of whom 58 passed the prescribed tests—38 Civil and 20 Military. The effect of the examination was to reduce considerably the number of students, which, on the 30th April 1859, had amounted to 91. Many of these were apprentices sent up from the Provinces by the District Engineers, whose preliminary education and knowledge of the English language had not been sufficient to enable them to profit by the instruction given in the institution. Of the 58 candidates who were found qualified for admission on the result of the first examination, 4 did not join; and at the close of the annual examination of the classes, which was held in June, the number had been reduced to 30, of whom 9 obtained certificates as Assistant Overseers, 2 as Sub-Overseers of the 1st class, and 2 as Sub-Overseers of the 2nd class. The fixed charges of the Institution were Rs. 1840 per month. At the examination held in June, only 18 civil candidates presented themselves, of whom only 10 passed.

School of Ordnance Artificers.—The drawing and surveying classes were in good condition, but the mathematical knowledge imparted was wanting in soundness.

School of Industrial Arts.—There were 126 in the Artistic and 88 in the Industrial department. Dr. Hunter reports favorably both of the Drawing and Engraving classes. Applications for engraved illustrations, diagrams and drawings of different kinds, continued to increase.

Army Schools.—The reports were on the whole favorable, considering the small number of trained teachers available. An additional Army school was organized at Arcot. A school at Seetabuldee and the cantonment school at Secunderabad availed themselves of the monthly grant of Rs. 25 offered to English schools in Native Regiments for the instruction of the children of Staff Serjeants and European and East Indian Bandsmen and

Drummers. The Governor in Council directed that all schools attached to Her Majesty's Indian, European and Native Regiments stationed in the districts subject to the Madras Presidency, and in the territories of Mysore and Travancore, shall in future be inspected periodically by the Government Inspectors of schools. The *Roman Catholic Orphanages at Madras and Bangalore* were placed under inspection. The four Protestant Orphan Asylums in Madras, were put under inspection. The Lawrence Asylum, Male and Female, remained under the management of the Ootacamund Committee, and pending the orders of the Secretary of State, receive a grant from Government of Rs. 1,000 per mensem.

Tables in the appendix show that the annual cost of each pupil's education in 1859-60 was—

	Rs.
Presidency College General Branch ...	206-11-2
Legal "	181-8-3
against Rs. 131 and Rs. 48 respectively in 1855-56. In the	
Doveton Protestant College the cost was Rs. 140-9-1 against	
Rs. 61-2-8 in 1855-56.	

POPULAR EDUCATION IN THE PUNJAB.

1860-61.

THE Report is submitted by Captain A. R. Fuller, Director of Public Instruction. The general statistics will be found at page 109 of this volume of the "Annals."

The effect of the abolition of the former native supervising agency and of the transfer of the executive management of Vernacular Schools to District officers, was beneficial. A great obstacle to educational progress was the famine, which afflicted the population in the Delhi, Hissar, and Cis-Sutlej Divisions, more particularly, and the effects of which were felt more or less severely throughout the Punjab. The price of food was everywhere exorbitant, even in the most favoured Districts. The consequent distress of course thinned the schools, and gave all classes of the community, both official and non-official, but little leisure to attend to the promotion of education. The system of levying fees was, therefore, not fully introduced. The attendance was affected by the fact that one-fifth of the vernacular teachers were absent during the year, being under instruction in the Normal Schools. The other reforms this year produced a good result viz. (1) Payment of Tahseeli schools from 1 per cent. cess fund

instead of from the general Revenues ; (2) organization of superior Normal Schools for training vernacular teachers ; (3) establishment of efficient Zillah Schools for imparting a good Anglo-Vernacular Education ; (4) increase of grants-in-aid to good private Schools ; (5) direct subordination of the Department to Government. As to the first, whereas the cost of the general supervising Establishment charged to the imperial revenues in 1859-60, amounted to Rupees 93,643 ; it only came to Rs. 67,377 in 1860-61. Again, Rs. 32,764 were spent during 1860-61 on Tahseeli Schools, out of the one per cent. cess fund. The following grants-in-aid were given :—

Name of Institutions.		At close of April 1860.	At close of April 1861.	From 1st May 1861.
Lahore Mission School,	...	200	200	225
Amritsur,	...	150	150	150
Jullundur,	...	100	100	100
Loodiana,	...	50	125	125
Loodiana Female Mission School,	...	25	25	51
Sealkote Mission School,	...	50	50	50
Kangra,	...	50	50	50
Kotegurh,	...	50	50	50
Rawul Pindee,	...	30	80	130
Peshawur,	...	200	200	225
Delhi, ...	...	250	250	250
Mooltan,	...	80	...	...
Anarkullee,	...	100	100	100
Jhandiala,	...	15	15	15
Amritsur Female Orphanage,	...	...	26	26
Amballa City,	...	...	100	100
Ditto Cantonments,	...	...	50	50
H. Lawrence Memorial Asylum,	...	...	500	500
Narrowall Mission School,	...	...	20	20
Sanawar Native Ditto,	...	...	25	25
Khyrabad Mission, ...	...	...	...	70
Delhi Female School,	...	...	...	25
Total,	...	1,350	2,116	2,337

The Lieutenant Governor having approved, in the orders passed on the previous report, of the pupil teacher system, and its extension to all Vernacular schools under efficient masters, monitors or pupil teachers were appointed in all schools, where the large number of the scholars, or the expediency of retaining any very diligent or useful boy, rendered such appointments desirable. This measure gave general satisfaction.

The Bible in Schools.—The Report says—"It has been laid down by the Secretary of State for India that the Bible should be lodged in every Government Library, and free access allowed to it. Hence under the express orders of the Punjab Government, copies of the Holy Scriptures in English and the Vernacular and in Romanised Urdu, have been supplied to all School Libraries. Every facility is afforded to scholars, who spontaneously desire to read the sacred volume, to do so out of school hours; and to Christian teachers, whether European or Native, to assist their pupils in understanding its eternal truths."

Female Schools.—There were 38 Female Schools under Government supervision, supported like other Vernacular schools, from the one per cent. cess fund. They contained 812 girls at the close of the year, and the average number attending daily during the whole of that period, was 671.

Normal Schools.—There were 334 Mahomedans trained to 111 Hindoos and 6 of other castes. The Report says "Vernacular Education is in the hands of the Mahomedans, and we cannot supersede them, so long as they retain their popularity. District officers, however, might prepare the way for a gradual change by encouraging more Hindoos to qualify as teachers, and by appointing them to schools where the residents are not too strongly prejudiced in favour of Mahomedan instructors." 273 Normal students obtained certificates.

General Results.—From the opening of so many Zillah Schools, and the grant of Government aid to additional private institutions, the number of pupils learning English greatly increased. Last year there were 1,725, but now there are 3,164 students of that language, of whom 1,594, or rather more than a half, are in purely Government, and the rest in aided Schools. There are 1,898 schools of all descriptions, either directly under Government, or connected with it by the receipt of support from the State. The number

of scholars on the rolls of these institutions at the close of 1860-61 amounted to 44,642, and the average daily attendance throughout the year has been 36,380. The aggregate expenditure on education during the year was Rupees 4,18,510, of which Rupees 1,48,852 were charged to the Imperial Revenues, and Rupees 2,29,101 to the one per cent. cess fund. The subjoined table will afford detailed information on the financial affairs of the Department :—

Present No. of Schools.	Description of School.	Aggregate expenditure from all sources.	Chargable to Imperial Revenue.	Chargable to one per cent. Educational cess Fund.	Cost of educating each pupil.			
					Total Cost 1859-60.	Total Cost 1860-61.	Cost to Government 1859-60.	Cost to Government 1860-61.
20	Superior Zillah Schools,	55,306	43,025	"	24 14 "	31 5 1	12 1 "	24 5 10
3	Inferior Zillah Schools,	2,610	2,520	"	5 14 "	10 5 9	5 9 "	10 " 9
123	Tahsili Schools,	35,470	958	32,764	6 7 10	6 7 10	6 9 "	" 2 9
1,626	Village Schools,	1,24,773	1,620	1,22,353	4 8 4	4 10 3	3 11 "	" 1 " 11
38	Female Schools,	1,426	2	605	8 1 11	2 2 2	3 1 11	" " 11
10	Private Schools, (Superior)	35,395	16,320	"	11 8 "	22 15 3	3 3 "	10 " 11
10	Private Schools, (Inferior)	3,399	3,709	"	22 1 "	25 10 11	7 10 "	8 9 7
8	Normal Schools,	29,998	9,851	20,059	52 3 "	85 3 6	52 3 "	28 1 1
	General Establishment and other charges	1,07,501	67,877	39,624	" "	" "	" "	" "
	Excess of Receipts over charges,	16,632	2,941	13,691	" "	" "	" "	" "
	Total	4,18,510	1,48,853	2,29,101	" "	" "	" "	" "

The three educational circles of the Punjab were under Mr. R. Spencer in Umballa, Lieut. Forbes in Rawul Pindce, and Mr. W. C. Alexander, B. A., of Trinity College, Cambridge, in Lahore. On the subject of the Lahore Mission School the Director remarks. "It is numerous and regularly attended, and is very carefully conducted by the Rev. C. Forman of the American Presbyterian Mission. The attendance has increased from 350 to 374 during the year, and a trifling fee is now taken from all but the very poorest pupils. The opening of the Government School at Lahore, therefore, so far from injuring the prospects of this Institution, has actually improved them. The example set by the Sirdars and chief native gentlemen at the Capital of sending their sons to school, has given a great impetus to Education among all classes of the citizens; and the levy of a substantial entrance donation and monthly fee at the Government school has so raised the value of Education that the boys at the Mission School are now willing to pay something for it."

Influence of District Officers.—The influence of the District officers and officials in encouraging education will be seen from the following extracts. "The District of Peshawur is, and always has been, one of peculiar difficulty to the Educational Officer. The people, mostly Mahomedan Pathans, are notoriously bigoted, fanatical, and suspicious. They therefore evinced not merely an entire apathy to the schemes for popular education, when first set on foot amongst them, but an active persistent hostility to them, regarding them with jealous suspicion as deliberate attempts to break down the out-works of their religion, and eventually to destroy it altogether. Under such circumstances rapid strides cannot of course be taken, nor does it do to be too sanguine. Still an impression is being gradually made as is evidenced by the comparative success of the Normal School, and that more decided and substantial of the Mission institution. To this latter indeed we may look for very distinct results at no distant period, and I look upon it as a very favourable sign that the sons of some of the neighbouring chieftains have been allowed to attend it. The Commissioner, Captain James, C. B., and Captain Cox, the Deputy Commissioner, and indeed all the District officials, are keenly alive to the importance of education, and the former, by the tact and judicious liberality of his support, has done very much indeed towards fostering the movement in his Division. The District of Kohat with a population of similar habits and feelings as that of Peshawur, though also of a milder character, has yet by the steady judicious efforts of Captain Henderson, C. B., the Deputy Commissioner, at last evinced indications of a

gradual impression being made in it." Of the Derajat Division, in regard to enlisting and securing the aid of his Tehseeldars and other subordinates, Captain Munro thus writes :—" All Tehseeldars and Thanadars have been repeatedly enjoined to lend the aid and influence of their position as Government servants, and members of the community, to the encouragement of the schools within their bounds, and instances of approbation or censure by the Government of such officials in other Districts which have been mentioned in the printed Quarterly Reports, are from time to time brought to their notice, with a view to stimulate them to exertion in the cause of education. The people have begun to look upon the schools with greater favour, since the District Authorities have been so particularly associated in the management, but still much bigotry, apathy, and intolerance remain to be overcome."

Sir R. Montgomery's Opinion.—Reviewing the statistics of the year the Lieutenant Governor observes that the facilities for obtaining an English education have been greatly increased, but that in general the masters of the Zillah Schools are not of the first class ; that the Normal schools have been instrumental in slightly improving the Vernacular teachers ; but that owing to the general ignorance and inaptitude of the Vernacular Schoolmasters, the diffusion of elementary learning must be of slow progress. It is something however to know thoroughly the difficulties and deficiencies of the existing system, and that success can only be attained by the skilful selection and instruction of the teachers of all grades

BENGAL MILITARY NORMAL SCHOOL.

This forms the subject of a separate Report from Captain Fuller forwarding one by Captain Dunn, Superintendent of Army Schools. Of the six *male* students at the beginning of 1860-61 four were appointed schoolmasters and one was dismissed. Eight were admitted so that the year closed with nine altogether. Captain Dunn complains of the rules enforced in England, by which all candidates under the rank of Corporal or over 25 years of age, are prohibited from entering. They were not made applicable to the Local European Regiments as long as these were in existence, but owing to the amalgamation of the British and Indian Services, the prohibition is now enforced throughout the combined Army in India. Where no candidates are procurable from the Civil community of Europeans, and the Military portion of them contains so few of a superior stamp in point of character and intelligence combined, it appears to be raising a needless difficulty to make any such restriction absolute in all cases. Captain

Dunn recommends the extension of the limit of age to 35 at least, and the reception of all ranks in the Army as candidates, subject to the ordinary conditions of character and qualifications. Without this it will be impossible to obtain sufficient candidates to fill the School, when the main building is completed, and accommodation becomes available for 16 or 20 students.

Two *female* students were appointed to Regiments. The whole number was increased by seven during May 1860. All worked well until September when a General Order appeared reducing the pay of School Mistresses to Regiments, which created great discontent. Soon after the Head Mistress sent in her resignation. This led to an almost total breaking up of the school. The school was subsequently re-opened with seven students. The General Order whereby the fixed salary of 40 Rupees allowed for all Regimental School Mistresses was abolished—and three grades of salary substituted instead, viz. 25, 30 and 40 Rupees per mensem according to qualification and service, very much damped the ardour of aspirants. These grades were introduced to assimilate the practice of the Indian with that of the British Army at home, but considering the higher rate at which all European labor in this country is remunerated, it appears unreasonable to fix the pay of Army School Mistresses at the same scale, both in England and in India. This is a point that requires to be strongly represented. These points were referred for the order of the Supreme Government.

CRIMINAL JUSTICE IN THE MADRAS PRESIDENCY.

1860.

THE Report consists of tabular statements submitted by Thos. Wilkins, Esq., Acting Deputy Registrar of the Sudder Court, to T. Pycroft, Esq., Chief Secretary to Government.

Village Police.—Of 26,801 cases, 4,736 were discharged without trial, 4,637 acquitted after investigation, 8,322 convicted and punished, 9,042 referred to higher authorities and 64 otherwise disposed of.

District Police.—Of 2,27,353 cases, 66,551 were discharged without trial, 95,749 acquitted, 50,617 punished, 9,555 referred to higher courts, 3,265 died, escaped or were otherwise disposed of, and 1,616 were under trial on 31st December 1860.

Subordinate Judges, Principal Sudder Ameens and Sudder Ameens.—Of 7,261 cases, 55 were discharged, 2,666 ac-

quitted, 1,897 convicted, 2,274 referred to Sessions Judges, 175 otherwise disposed of, and 194 under trial at the end of the year.

Magistrates, Joint Magistrates and Assistant Magistrates.—Of 14,645 cases, 881 were discharged, 5,853 were acquitted, 4,873 were convicted, 763 were committed to subordinate Courts, and 1,860 otherwise disposed of.

Sessions Judges.—Of 3,717 cases, 3 were discharged, 1,666 acquitted, 1,392 convicted, 231 referred to Faujdari Court, 75 remanded to Lower Courts, and 176 otherwise disposed of.

Faujdari Adawlut.—Of 347 cases, 161 were released unconditionally and 7 on security, 170 were convicted, 5 were remanded, and 4 were under trial at the end of the year.

Punishments.—779 were discharged on security, 204 dismissed for offence, 48,147 fined, 604 flogged, 14,375 imprisoned for not more than a month, 1,340 between 1 and 6 months; 587 between 6 and 12 months; 310 between 1 and 2 years; 73 between 2 and 3 years; 57 between 3 and 4 years; 106 between 4 and 5 years; 1 between 5 and 6 years; 176 between 6 and 7 years; 51 between 7 and 8 years; 10 between 9 and 10 years; 219 between 12 and 13 years, and 1 for life; 37 were transferred, and 53 put to death.

Average duration of cases referred to the Faujdari Adawlut.

Years.	From apprehension to commitment.	From commitment to reference.	From reference to receipt.	From receipt of reference to sentence.	Total from apprehension.
	Days.	Days.	Days.	Days.	Days.
1856	20	53	7	8	88
1857	21	55	7	10	93
1858	16	43	7	6	72
1859	17	43	7	6	73
1860	21	47	7	8	83

Crimes.--

	1859.	1860.
<i>Against the Person.</i>		
Murder	303	337
Homicide	58	49
Wounding with intent to kill	33	27
Assault with wounding	395	448
Rape	79	111
<i>Against Property.</i>		
Highway Robbery with aggravating circumstances	165	157
Highway Robbery without aggravating circumstances	492	638
Gang Robbery with aggravating circumstances. —In houses	212	210
Gang Robbery with aggravating circumstances. —In fields	85	74
Gang Robbery without aggravating circumstances.—In houses	339	425
Gang Robbery without aggravating circumstances.—In fields	232	304
House breaking—Into substantial dwellings and with personal injury	4,022	3,676
House breaking—Into huts and other insecure dwellings	2,804	2,205
Theft	2,249	2,125
Cattle stealing, killing or wounding	1,398	1,187
Arson	341	345
Embezzlement of fraud	387	386
Forgery	183	199
Perjury	60	39
Various	3,597	3,322
Total number of Cases	17,434	16,464

CRIME IN THE CITY OF MADRAS.

1860.

THE Report, consisting chiefly of tabular statements, is submitted by Major W. J. Wilson, Commissioner of Police. The number of cases decided in the Madras Police offices was:—

Town Police Court : in 1859, 8,366 Cases—in 1860, 8,760

Vepery Police Court : „ 6,805 „ „ 7,164

Royapettah Police Court : „ 5,484 „ „ 4,197

Commissioner of Police : „ 2,468 „ „ 2,090

showing a decrease of 912 cases. In 1859, 306 Seamen were brought up for refusing duty, and for other offences against the Merchant Shipping Act, whereas in 1860 there were only 101. This decrease is attributed to the judicious measures of Mr. Dalrymple, the Master Attendant, who reasoned with discontented men, and allowed them time for reflection, instead of putting them before a Magistrate at once ; a course which gene-

rally confirmed them in their resistance. Of six Prisoners committed for kidnapping children, five were convicted, and since that time there have not been any instances of this offence. Although the crime of Perjury is unhappily so prevalent, there have been but few instances of offenders being brought to trial, and still fewer of their conviction. During the past year, however, five persons were committed for Perjury and subornation of Perjury, four of whom were convicted and punished; one of them, a wealthy money-lender, having been sentenced to seven years' transportation. The sum of Rs. 19,272-7-8 was realised during the year as fines. The sum of Rs. 23,346-15 was collected from Cargo Boats under Act XXVIII. of 1858. In the Madras Penitentiary there were 3,286 prisoners or an average of 3,286 per month. 163 inquests were held by the Coroner against 196 in 1859. Of these 2 were murders, 2 manslaughters, 7 drowning, 1 cutting the throat, 12 drowning while temporarily insane, 1 pistol shot and 1 hanging while in the same state. The rest were cases of accidental death.

Monthly Number of Deaths within the Jurisdiction of the Supreme Court of Madras for 1860.

MONTHS.	Males.	Females.	Children under 12 years of age.	Total.	Cholera.
January ...	290	303	288	881	2
February ...	260	225	254	739	2
March ...	233	259	305	797	2
April ...	240	229	305	774	6
May ...	265	261	426	952	20
June ...	270	269	427	966	87
July ...	626	692	852	2,170	1,219
August ...	492	484	647	1,623	635
September ...	346	373	526	1,245	275
October ...	320	365	494	1,179	162
November ...	315	346	467	1,128	91
December ...	301	322	421	1,044	75
Grand Total	3,958	4,128	5,412	13,498	2,576

The Municipal Commissioners were still engaged in prosecuting their enquiries with the view of obtaining a correct census.

CIVIL JUSTICE IN THE MADRAS PRESIDENCY.

1860.

THIS Report is prepared like that on Criminal Justice. The general results will be found at page 57 of this volume of the "Annals." They are embodied in the following table :—

Aggregate of Original Jurisdiction.

	1856.	1857.	1858.	1859.	1860.
Depending 1st January ...	54,287	53,528	57,646	63,735	88,132
Instituted during the year ...	1,21,670	1,26,105	1,43,389	1,63,269	1,37,834
Total ...	1,75,957	1,79,633	2,01,035	2,27,004	2,25,966
Decided on merits ...	47,043	46,888	48,181	54,148	62,011
Dismissed on default ...	10,757	11,609	8,983	9,986	13,555
Adjusted or withdrawn ...	62,577	61,178	62,218	63,084	63,152
Otherwise disposed of ...	2,052	2,312	17,918	11,654	18,393
Depending 31st December ...	53,528	57,646	63,735	88,132	68,855
Decided by European Judges ...	716	819	3,726	3,232	4,728
Decided by Native Judges ...	1,21,657	1,21,118	1,33,526	1,35,579	1,52,307
Do. by Punchayets ...	56	50	48	61	76
Total decided ...	1,22,429	1,21,987	1,37,300	1,38,872	1,57,111

52,708 were decided in favor of Plaintiff and 9,303 of Defendant. The value involved in suits was Rs. 1,70,95,781 against 2,31,92,613 the previous year. The average duration of suits will be seen from the following :—

The description of original suits was as follows :—

	1856.	1857.	1858.	1859.	1860.
Connected with land rent and revenue	9,979	11,217	4,011	4,676	2,882
Otherwise connected with land	...	...	8,939	10,364	7,774
For Houses or other fixed property	2,281	2,647	3,086	3,763	2,868
Connected with debts, wages, &c.	1,09,324	1,12,093	1,14,919	1,35,206	1,05,179
Do. do. caste, religion, &c.	...	...	466	524	478
Do. do. Indigo, Sugar, Silk, &c.	...	...	3,154	2,282	2,734
Total	1,21,564	1,25,957	1,34,575	1,56,815	1,21,915

The duration of suits was as follows :—

	1856.			1857.			1858.			1859.			1860.		
	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.
Sudder Court	...	2	19	...	3	5	...	3	26	...	3	10	...	6	21
Civil Judges	1	6	1	1	3	27	1	3	27	...	1	12	...	4	11
Subordinate Judges	...	1	2	...	1	22	...	3	8	...	1	2	...	1	16
Assistant Judges	...	1	7	...	3	1	...	3	1	...	1	1	...	1	1
Principal Sudder Amceus	2	7	1	2	6	10	1	11	7	...	9	19	...	10	23
Sudder Amceus	1	4	11	1	1	20	...	7	1	...	10	2	...	9	1
District Moonsiffs	...	7	24	...	5	14	...	7	29	...	7	14	...	7	11

ADMINISTRATION OF THE NORTH WESTERN PROVINCES.

1860-61.

JUDICIAL.—*Civil Justice.*—

	1859.	1860.
The number of suits instituted was	71,220	63,038
Ditto ditto finally disposed of	75,952	65,414
Ditto ditto pending 1st January	14,403	11,673

To the prevailing famine is attributed the decrease of 8,182 in the number of regular suits instituted. Out of 54,451 original suits and appeals decided in trial during the year, 8,855 were decided *ex-parte*, and 16,910 on confession. The Judges and the Court are unanimously of opinion, that the confessions are, almost without exception, made without any fraudulent intent; and the question may therefore be regarded as having been disposed of, especially as a Bill is before the Legislative Council for legalizing cognovits without suit.

The following is the appeal statement :—

COURTS.	Number of Suits decided.	Appeals admitted	Appeals reversed or modified.	Appeals confirmed	Proportion of Appeals admitted to Suits decided	Proportion of reversals, including orders modified, and remands to Appeals tried
Moonsiffs'	53,327	4,671	1,613	2,744	9	37
Sudder Ameens'	1,890	328	124	198	17	39
Principal Sudder Ameens'	5,341	1,014	271	500	19	35
Judges'	71	30	12	25	50	32

In the Moonsiffs' Courts the average duration of suits was 1

month 24 days, in the Sudder Ameens' 3 months and 8 days, in the Principal Sudder Ameens' 3 months 19 days, and in the Judges' 5 months and 8 days—all shewing an improvement on the previous year.

The total number of suits instituted was as follows :—

Land rent	...	...	...	321
Real property	...	...	...	2,913
Debts or bond	...	...	...	39,667
Other suits	...	...	...	13,341
Total				56,242

The aggregate value of stamps filed in the subordinate Civil Courts is	...	...	5,75,412
Refunded on Razeenamah	...	...	52,623

Net value ... 5,22,789

COURTS.	Total number of Suits disposed of, Original and Appeal.	Total value of ditto.	Total cost of ditto.	Average value of each Suit.	Average costs of each Suit.	PERCENTAGE OF COSTS TO VALUE	
						1860.	1859.
Judges' ...	3,332	28,25,577	1,91,943	780	54	6.75	11.65
Principal Sudder Ameens'	6,858	59,78,511	6,75,887	871	98	11.14	12.27
Sudder Ameens'	1,890	7,42,366	1,32,367	392	70	17.83	1.50
Moonshiffs'	53,327	40,65,120	6,25,065	76	11	15.37	19.27

The Court and the Judges are unanimously of opinion, that the power conferred on the subordinate Civil Courts of imprisoning debtors in execution of decrees, have not been abused by them. The number of debtors incarcerated during the year was 703, or 136 more than during 1859. Under section 24, Act VIII. of 1859, by which either of the parties to a suit is prosecuted criminally for false verification of plaints or written statements, there were 17 cases, 10 of which resulted in a conviction, 7 in an acquittal. The report of the Civil Administration in the Saugor and Nerbudda Territories shows an increase of efficiency in every branch.

There was an increase in original suits—

In 1859	...	...	...	8,387
In 1860	...	...	...	9,413

In 1859, in execution of decrees, the balance unexecuted, amounted to 736. In 1860, in execution of decrees, the balance unexecuted, amounted to 562.

The value of Stamps sold in 1859 was	...	Rs. 36,598
Ditto ditto in 1860 was	...	42,534
The number of common appeals in 1859 was	...	427
Ditto ditto in 1860 was	...	426
Of these, there were pending at the close of 1859	...	26
Ditto ditto of 1860	...	59

Under the provisions of Act L. of 1860 the Hindoo and Mahomedan holidays were reduced, as a tentative measure, to 18 and 9 respectively.

Criminal Justice.—The total number of persons on trial was

In 1859	...	...	71,449
In 1860	...	...	72,904

In the latter year the number of cases disposed of by the magisterial authority was 70,483, the proportion of convictions and committals to acquittals being 63 per cent. of the former.

The total number of appeals was as follows :—

Criminal, rejected	...	...	279
Ditto confirmed	...	...	1,142
Ditto reversed	...	...	699
Total	...	...	2,120

Miscellaneous rejected	...	...	189
Ditto confirmed	...	...	437
Ditto reversed	...	...	204
Total	...	...	830

Under Appeals Act IV. of 1840—

Ditto ditto rejected	...	...	48
Ditto ditto confirmed	...	...	426
Ditto ditto reversed	...	...	134
Total	...	...	608

The result of the committals, as compared with the same in the previous year, is shown in the following abstract :—

YEAR.	Convicted.	Referred.	Acquitted.	Died, escaped, &c.	Commitment cancelled.	Proportion of acquittals to persons tri- ed.
1859 ..	1,364	723	1,333	151	172	39
1860 ...	1,548	391	869	11	115	31

248,597 witnesses were examined during the year, of whom no less than 89 per cent. were dismissed on the first day, and only 1 per cent. were detained beyond four days.

The punishments inflicted by Magistrates were

For 3 years	...	...	925
From 6 months to 2 years	...	...	4,628
Not exceeding 6 months	...	...	7,163
Fined	...	...	18,730
Security	...	...	3,797
Flogged	...	...	3,415
Total	...	...	40,219

The number of sentences passed by the Nizamut Adawlut in the 2 years shows a considerable diminution in 1860—owing to the falling off of cases connected with the mutinies :—

PENALTIES.	1860.	1859.
Death ..	74	129
Transportation	107	108
Imprisonment for life	0	1
Ditto above 12, not exceeding 21 years	37	64
Ditto above 5, and not more than 12 years	414	57
Not exceeding 5 years	78	46
Total	340	495

Natives of rank and respectability and their retainers were authorised to carry arms according to Section 27 of Act XXXI. of 1860. The crime of robbery by the administration of poisonous drugs was largely on the increase and the evil spread to the districts of Oudh which are opposite to Cawnpore. Captain Chamberlain, the Assistant to the General Superintendent for the suppression of Thuggee for the North Western Provinces and Oudh, was entrusted

with the investigation of all cases of this description which might occur within the limits of his jurisdiction. One remarkable trial took place during the year, viz. the trial and dismissal of all the Omlah at Futtehpore, who were present at that Station at the time of the murder of the late Mr. Tucker, in 1857. The association of Natives of rank and respectability in the administration of the Government having succeeded in the Punjab and Oudh, it was determined to introduce it into the North Western Provinces.

Police.—Crimes of violence, and especially predatory crime, decreased during the year, and the crime of dacoity was reduced to its lowest ebb. The returns show painfully the utter inefficiency of the Police, whether in the prevention or in the detection of crime. Much may be expected from the working of the new Police, if the co-operation of the community, among whom they work, can be secured. The Lieutenant Governor effected considerable reductions in the strength of the Military Police. The following statement will show at a glance the cost of the Police in these Provinces on the 1st of May 1860, and on the 1st of May 1861 respectively :—

<i>Cost of Police on the 1st of May 1860.</i>				
Military Police	...	Rs.	43,01,428	
Civil Police in the Regulation Provinces	...	"	16,09,656	} including municipal.
Ditto ditto in Non-Regulation Provinces	...	"	3,49,500	
	Total	Rs.	62,60,584	
Paid by Act XX. of 1856	...	"	3,48,552	
Cost to Government	...	Rs.	59,12,032	
<i>Cost of the Police on the 1st of May 1861.</i>				
<i>Regulation Provinces under Act V. of 1861.</i>				
Police Force, including municipal	...	Rs.	27,07,288	
Inspector General and office	...	"	88,276	
	Total	Rs.	27,95,564	
Deduct paid by Municipal Fund	...	"	3,48,552	
		Rs.	24,47,012	
<i>Non-Regulation Provinces.</i>				
Military Police	...	Rs.	7,53,420	
Civil Police	...	"	3,49,500	
	Total cost to Government	Rs.	35,49,932	
	Total saving effected	"	23,62,100	

A Deputy Inspector General was appointed to each Com-

missioner's Division. A new system of police was established with the following results :—

<i>Division.</i>	<i>Total No. of Police.</i>	<i>Total monthly* cost.</i>
Meerut		
Agra		
Allahabad	22,996	Rs. 2,06,720 0 0
Rohilcund and Benares		
Of these there are		
Jail guards	1,189	at cost of 8,322 0 0
Sudder treasury ditto	638	4,564 0 0
District Police	21,004	1,91,334 0 0
including Revenue		
Of the total cost of police		
The Cities pay		33,536 8 0
Government ditto		1,57,697 8 0
		1,91,234 0 0

In the Detection of Crime and Prosecution of Offenders the Police was successful beyond the expectations of the Inspector General. The recovery of 33 per cent. of property plundered, instead of 12 per cent., is indicative of success. A fair proportion of offenders was found out and brought to trial by the Police, and, excepting in Cawnpore, convictions varied from 65 to 82 per cent. Altogether the Lieutenant-Governor is of opinion that the new Police system has been inaugurated under the fairest auspices, and promises to be a great success, provided only that the landholders can be made to assist the Constabulary in the prevention and detection of crime.

Jails.—The general result of the management of the Jails was satisfactory. The daily average number of prisoners in confinement during the year was 14,608, and the total cost Rupees 6,99,324, which shows an increase of 743 prisoners, and an excess of expenditure of Rupees 57,393, the high average cost being the result of the recent famine. With the exception of the cost of permanent establishment, compensation in lieu of convict labor, prison and hospital rations, there was a considerable decrease under each head of expenditure. The cost of conveyance to the Presidency of convicts under sentence of transportation, which has increased ten-fold during the last three years, is a very heavy item in the expenditure of the Jails. The total number of escapes from custody were 117, of whom 66 were recaptured. Of those who escaped during the mutinies, 1,019

* i. e. without District Superintendent and general charges, Inspector General and Deputies.

were re-captured during the year, leaving about 13,600 still to be accounted for. The sale of manufactured articles amounted to Rupees 46,108, exclusive of goods in store to the value of Rupees 28,271, and the preparation of a large quantity of prison clothing and other articles for prison use, the cost of which was the price of raw materials only.

REVENUE.—An Agricultural and a Revenue year were established, the former ending on the 30th June of each year, and the latter on the 30th September; the period now embraced being only the five months from the 1st of May to the 30th September 1860. *Land* revenue on account of

Public instalments collected was ...	Rs.	1,96,52,396
Balance due ... ..	..	7,81,115
Total demanded		Rs. 2,04,33,505

The issue of *Dustuks* decreased, 62,895 only of these processes being issued during the five months as compared with 70,488 in the corresponding period in 1859. The total number of suits decided under Act X.

During the 5 months was	13,850
Ditto still pending	3,078
Total instituted	16,928

The net *Abkaree* Revenue for the five months, from the 1st of May to the 30th September for the three last years was as follows :

1858-59.	1859-60.	1860-61.
Rs. 6,93,969	| Rs. 9,76,315	| Rs. 11,69,748

The greatest increase was in the Districts of Allahabad and Cawnpore, *viz.* an increase of Rupees 36,967 in the former District, and Rupees 29,409 in the latter, as compared with 1859.

The *Stamp* revenue in 5 months was ... Rs. 6,54,426

Ditto in 5 months of 1859 ... Rs. 6,51,942

The *Sayer* Revenue demand rose from Rupees 45,841 to Rupees 60,835, or about 33 per cent.

Land Revenue from the Khalsa Villages ... Rs. 1,74,800 10 11

From *Istumrardars* including Shahpoora

Tribute 1,26,016 2 7

Total Rs. 3,00,816 13 6

Income Tax —The total estimated assessments under Act XXXII. of 1860, in all the Districts of these Provinces, Ajmere

alone excepted, amounted to Company's Rupees 29,66,427-7-0, and the total sum realized on 31st July last, being the end of the Income Tax year, was Rupees 28,99,000. The general average of the amount contributed by each Tax-payer was Rupees 17-11-10. Lump assessment was had recourse to, in the large and populous cities of Allahabad and Benares; but the plan proved unfair to the poorer population, and the assessments will consequently be made by taxing each individual separately during the ensuing year. The appeals from surcharges were very few, and fines were sparingly enforced; the provision for compositions was very rarely adopted. No resistance but that of false returns was offered to the tax, and with the exception of the District of Goruckpore no complaints were made.

Customs.—The aggregate income under this head was Rs. 89,49,412.

	N. W. Provinces.	Punjab.	Total.
Salt ...	53,11,643	31,48,089	84,59,732
Sugar ...	2,39,446	2,19,091	4,58,537
Sundries ...	24,544	6,599	31,143
Total ...	55,75,633	33,73,779	89,49,412

Last year the total was Rs. 67,76,843, shewing an increase in the year under review of Rs. 21,72,569. The increase of salt revenue was due to the increased facilities of transport, the carts which carried grain to the distressed districts being used on their return for the carriage of salt—and to the prohibition of salt manufacture in Oudh. The decrease in sugar collection from Rs. 7,18,944 in the previous year to Rs. 4,58,537, is attributed to the failure of rain, and it is supposed that the revenue under this head will be doubled in the course of the current year.

Education.—See page 176 of this volume of the "Annals."

Public Works.—Under the restrictions of the Budget, the construction of such large works as the Barracks at Gwalior, Cawnpore, and Bareilly, was all but suspended. Works of absolute necessity were alone pushed on to completion. The Memorials at Cawnpore and Jhansie progressed. With regard to irrigation, the rains this year utterly failed, and thus very little

damage was done to the canal banks. In the Doon however towards the end of September 1860 the floods were unusually heavy and caused considerable damage. The total budget allotment for the irrigation department was Rs. 8,38,071, and the actual expenditure was Rs. 5,96,401, shewing a saving of Rs. 2,41,670. The total budget allotment in the Civil department was Rs. 3,02,344 and the actual expenditure on works and repairs was Rs. 1,54,622, shewing a saving of Rs. 1,47,722, but it is believed that the total expenditure is, owing to inadvertence, not accurately ascertained. Details will be found at page 53. The total amount expended on works and repairs in all the departments of public works was Rs. 43,06,307; the establishments themselves costing 22·6 per cent. thereof or Rs. 11,26,651.

FINANCIAL.—The principal saving effected was Rs. 23,62,100 in the Police department. Reductions were effected in the Chuprassee and Tahseel Establishments of Rs. 44,520 and 50,328 respectively. Claims to compensation on account of losses incurred during the Mutiny, amounting to Rupees 39,13,308, were made good. The total amount of the admitted claims was Rupees 47,33,814, but the balance had been previously paid to the applicants in the shape of succour.

POLITICAL.—In pursuance of our treaty with Maharajah Scindiah the Fort and City of Jhansie, the whole of the Assigned Districts of Neemuch, and the stipulated lands in the Jhansie Division, were transferred to the Gwalior Government, excepting a few villages in the Jaloun District. We received in exchange the pergunnah of Khunzeerah adjacent to the District of Saugor, the estate of Benec situated in the Agra and Muttra Districts, and a Jagheer in the District of Ajmere. Pillars now define the boundaries between the Districts of Jhansie and the District of Gwalior. Lands of the value of Rs. 1,28,542 were made over to the Nawab of Rampoor, and 4 villages to the Chief of Logasee, while the District of Nimar was transferred to the administration of the Agent to the Governor-General in Central India. A fine was levied on the Rajah of Bhunye for having permitted a suttee.

Population and Agriculture.—Seeds were sent to soldiers' gardens and to Zemindars for the supply of the troops, while many fruit and timber trees were extensively distributed, amongst them being the tallow tree of China and the Spanish chesnut. Hops were successfully introduced, and the experiment of producing flax was tried. Cuttings of the Chinese mulberry were distributed extensively for silk cultivation. Tea

planting was very successful. The financial conditions of the plantations of the North West Provinces are thus represented :—

42,210 lbs. of tea at Rs. 1-8-0 per lb. ...	Rs. 63,316	0	0
1,199 maunds of seeds at Rs. 20 per maund, (given gratis to planters)	„ 23,980	0	0
Total, Rs.	87,296	0	0
2,300,000, at Rupees 3 per 100 (given gratis to planters)	69,000	0	0
Total, Rs.	1,56,296	0	0
Expenditure, Rs.	57,000	0	0
Balance, Rs.	99,296	0	0

The officers of the Cotton-producing Districts were directed to put all the interior lines of communication into thorough repair, and to improve them, where necessary, so as to facilitate, in the highest possible degree, the exportation of the next season's cotton crop; and in cases where new lines of communication with the great outlets from these Provinces are needed, to construct them without delay, so that they shall be in good condition as soon as the export of next year's season shall commence. No census of the population was taken.

Forests.—In the Saugor and Nerbudda territories Teak trees had been indiscriminately felled, for every landholder had been declared free to cut whatever wood he pleased. In the Mundla, Seonee, Saugor, Nursingpore, and Baitool Districts, some of the forests had been reserved as Government property, and in these there still remained fine trees. It happened that an extraordinary demand for timber for Railway Sleepers and buildings arose, and in the tracts given up to the public reckless waste was being committed. It was therefore determined to provide for the prevention of further waste, and for the introduction of a system of good economical forest management. A special establishment for the conservation of the forests was agreed upon, the whole sayer revenue to be placed at the disposal of the Superintendent. A duty was imposed upon sleepers of *four annas* each, so that each tree was charged about Rs. 2-8. The total quantity of prepared timber new and old was 1,70,012. The amount expended was Rs. 1,21,734.

Mining.—A Company was formed to work the rich and extensive Coal and Iron mines in the Valley of the Nerbudda.

The plan was sanctioned by the Secretary of State. The tract to be worked lies between the Nerbudda river and the Gondwana Hills. The total area is about 300 square miles. During the year the property of the Government in the works established at Deechowree and Ramgurl, in the Kumaon Hills, was transferred to the trustees of a Company, known by the name of Messrs. Drummond and Co., at a valuation.

Vaccination.—In Gurhwal and Rohilcund only one death occurred from smallpox. Six Vaccinators had been employed at Rs. 10 per mensem each. In Rohilcund the numbers vaccinated this season were, owing to the famine, smaller than usual, viz., in all, 28,151. Of this number 16,346 were successful, 6,359 unsuccessful; 2,491 doubtful; in 2,955, result unknown. In the hills there were vaccinated 11,121; of whom 9,801 were successful; 567 unsuccessful; 461 doubtful; in 292 result unknown: making a grand total of 39,272 vaccinated; giving an average of upwards of 250 operations per mensem by each vaccinator, which is nearly as much as one man can accomplish properly. From the Hill Depôt were distributed 7,794 crusts, 1,568 points, and 191 glasses, a considerable increase on former years.

Hospitals and Dispensaries.—The Agra Medical School was most popular. New Dispensaries were established during the year at Hurda, Bunsce, and Umpoorce.

The Famine.—By the latter end of October it was evident that the people in the Meerut Division were threatened with absolute starvation, and that those in parts of the Rohilcund and Agra Divisions were in little better plight. Six lakhs were therefore placed at the disposal of the local Government to afford relief. Various public roads were set on foot to provide labor for the suffering population. A Central Committee was opened at Agra for their relief, and up to 31st of July 1860 the subscriptions amounted to Rs. 7,09,323. Rs. 2,87,000 were assigned for donations of grain and advances for farming stock and plough cattle, 61,29,923 people were employed on canals and roads, at an expenditure of Rs. 6,15,989. A balance of Rs. 3,85,286 remained with the Committee. The statistics of relief, &c. are seen in the following table:—

Statistics of Relief.

213

NAME OF DISTRICT.	Local and Subscriptions		Miscellaneous Receipts		Contributions from Akra (Total to Relief Committee)		Government Contribution		Total Income during the period		Expenditure		Daily average expenditure		Daily average number relieved	
	Local	Subscriptions	Receipts													
Delra Doon	2,012	15 6	0 0 0	0 0 0	0 0 0	0 0 0	1,398	9 6	3,411	9 0	1,914	8 34	62	9 6	2214	33,291
Saharnpore	7,350	5 2	101	5 0	0 0 0	0 0 0	6,363	15 9	14,425	9 11	15,248	1 7	497	1 2	1,5404	231,066
Moonuferrumqueur	2,461	2 9	9 9 9	0 0 0	0 0 0	0 0 0	3,404	3 4	5,877	15 10	5,296	8 8	174	4 10	7104	1,06,615
Roorkee	4,858	10 11	37 5 0	0 0 0	2,000	0 0	3,726	8 6	10,620	7 6	11,998	2 4	363	14 2	1,486	2,15,402
Meerut	13,498	0 5	2,850	0 3	37,100	0 0	12,563	15 8	78,040	14 6	81,317	0 8	2,566	6 7	7,3754	11,06,209
Boodhshuhur	6,297	2 3	5 8 0	0 0	12,500	0 0	3,185	3 2	21,000	13 5	22,036	0 10	619	3 4	3,9711	5,96,132
Allypurb	7,363	0 0	577	10 2	21,500	0 0	8,265	8 6	45,471	13 8	47,563	9 9	1,555	12 4	5,479	8,21,856
Muttra	16,227	4 10	0 0 0	0 0 0	8,000	0 0	5,300	12 10	29,258	1 8	26,550	11 2	873	0 11	8,3151	12,47,321
Agra	33,307	15 9	40 3 0	0 0 0	40,000	0 0	1,357	9 3	74,761	12 0	73,375	6 10	1,453	12 1	6,6001	9,06,033
Mynpoory	2,350	0 1	145	14 74	27,000	0 0	0 0 0	0 0 0	30,873	14 7	29,064	11 10	508	9 9	4,6042	6,90,713
Etawah	835	8 0	0 0 0	0 0 0	2,300	0 0	950	3 2	3,621	11 2	2,673	9 11	99	12 23	3061	54,101
Purruckabad	5,226	5 6	158	3 0	11,500	0 0	0 0 0	0 0 0	20,161	8 6	19,191	9 10	499	2 0	2,1571	8,21,563
Etah	2,967	3 3	190	14 2	23,000	0 0	0 0 0	0 0 0	25,288	1 5	19,455	10 7	598	6 11	4,8321	7,27,871
Bijnour	6,264	1 5	319	6 2	21,000	0 0	5,600	10 6	23,454	1 11	31,858	15 1	1,046	4 5	6,2431	9,36,489
Budoun	2,771	15 6	3 0 0	0 0 0	15,000	0 0	1,717	6 0	19,462	5 0	18,026	6 11	590	4 8	2,7684	4,15,254
Bareilly	5,891	8 2	74	4 3	0 0 0	0 0 0	5,301	8 2	10,857	4 7	9,024	5 9	297	2 2	9741	1,46,129
Mooredabad	14,413	3 0	5,153	6 3	22,000	0 0	12,508	11 0	53,817	4 3	51,529	14 5	1,860	11 9	5,0511	8,44,782
Total	1,33,548	5 10	9,684	9 64	2,46,000	0 0	78,354	13 4	4,71,049	6 11	4,65,374	16 54				94,86,857

During the months of scarcity the importation of grain to the distressed districts was enormous. At the end of March Colonel Baird Smith informed the Central Committee at Agra that upwards of three millions of maunds had passed from the Eastward alone, and the Grand Trunk Road was still covered with grain carts. A most beneficial result attended the operations of the Ganges Canal. The Superintendent-General of Irrigation calculated that 42,40,548 maunds, or 16,96,21,920 seers, or 339,243,840lbs. of grain were thrown into the market, irrespective of the sugar and cotton crop, through the agency of this canal. Colonel Turnbull remarks,—“The effect of throwing the above quantity of grain into the market during such a calamitous season as the present, will be fully appreciated when it is remembered that each pound will amply feed one man, or perhaps one woman and one child daily. Thus the above quantity of food, which could not otherwise have been produced this year, will have saved 33,92,43,840 men for one day, or 464,718 men, 464,718 women, and 464,718 children for a whole year; it will have produced fodder sufficient to keep from starvation the cattle of the districts through which the canal has passed; it will have caused a circulation of coin to the amount of not less than 120 lakhs of Rupees, £1,200,000 sterling; it will probably have saved the Government from making remissions of land revenue to the amount of 18 or 20 lakhs of Rupees at the very least; and it cannot fail to produce a very great impression on the minds of the people who will thus have been saved from starvation and misery, and to make them happy and contented, instead of being miserable and driven to commit crime, as they otherwise would have been. But besides these beneficial results of the Ganges Canal, the means afforded to the community of transporting grain from the Lower Provinces has been very much acknowledged, and taken advantage of.”

In 1837-38, when a famine occurred equal at least in intensity to that of 1860-61, these mitigating influences were not operative. The Ganges Canal existed only in embryo, not an acre of the large surface of 600 square miles, which, during the year 1860-61, was fertilized by its waters, could have produced a dozen blades of crop. During 1860-61, there were no grave riots, no extraordinary number of highway robberies, no plundering of grain stores, no increase in crimes of violence. The whole Province of Rohilcund was disorganized in 1837-38 by these crimes, and as many as 1,100 people were under trial in one district at one time. In 1860-61, not an extra policeman was entertained, and property was little less secure than in seasons of prosperity.

BOMBAY PUBLIC WORKS.

1858-59.

Bombay Records, No. LXIII.

COLONEL WALTER SCOTT, Chief Engineer, submits the annual reports of the several Executive Engineers to the Governor in Council. He notices the progress of the principal works.

Dharwar.—The construction of the military roads, connecting the Dharwar districts with the Goa and Canara frontiers, proceeded satisfactorily. The sum expended (Rs. 300 a mile) was well laid out, but it does not include the cost of the material used in the timber cross-drains, which was cut from the Government jungles. The Governor in Council remarks on a complaint by Captain Playfair. The subject of the obstruction offered by the higher castes of natives to Dhers and other low castes using the public tanks, can only be effectually met by permitting no encroachments upon prescriptive rights or usages on either side. If a tank has really been public in the people's sense of the term, not in ours, it should remain so. If otherwise, it ought to continue appropriated to the use of those for whom it was constructed.

Belgaum and Kolapore.—The Governor in Council remarks that the proposal to have a fixed tariff or nerrick for labour cannot, as observed by Colonel Scott, be entertained. The instances quoted by Captain Dickinson as precedents for the adoption of such a course, are by no means parallel. These observations are not, however, intended to prevent the several departments from fixing, in communication with each other for the purpose of avoiding competition and interference with each others' operations, the rates of labour which they will pay.

Southern Concan.—The Governor in Council remarks that the report of the late Mr. Armitstead opens up the important question of the suitableness of the Port of Waghotun—one deserving of separate consideration, for upon a right decision of it depends the success or otherwise of the line of communication to the districts north and east of Belgaum, which has been thrown open *viâ* the Phonda Ghaut.

Sattara.—While fully concurring in the necessity for improving the road between Sattara and Kolapore as early as practicable, the immediate commencement of the work, as recommended by Major North, seems out of the question in the opinion of Colonel Scott. The results effected by Captain Kennedy, which

embrace the making available for wheeled traffic two lines of roads, the one to the Port of Mhar and the other to that of Chiploon, are both creditable and satisfactory. The portion of road from the foot of the Koombharli Ghaut to Chiploon on the latter of those lines, will have the early consideration of Government.

Sholapoor.—The principal work executed in this district was the Sholapoor and Hyderabad road, as far as Tandoolwarri, which was opened out to traffic and completed, with the exception of portion of the culving. The Governor in Council considers the account given by the Executive Engineer of the irrigational works in his charge, most unsatisfactory. The desirableness of continuing to expend large sums in maintaining tanks which appear to be so unremunerative, is deserving of immediate consideration.

Poona District.—The principal work in this district was the repairs to roads. It may be eventually found necessary to metal the whole of the Poona and Nassick road; but to metal the Poona and Sholapoor road as far as the Bleema, as recommended by the late Executive Engineer, Lieutenant Colonel Graham, seems quite unnecessary, as the road is superseded by the Railway.

Mhow.—The Governor in Council remarks that as the frauds and mismanagement connected with the construction of the upper-storied barracks for Europeans at Indore, to which the Chief Engineer alludes, has been separately considered, it is unnecessary here to advert to it. Government are, however, glad to learn that the Chief Engineer has been able to put upon an adequate footing the establishment of the Executive Engineer of this charge, which seems to have been in an inefficient state, owing to the sudden demand made upon the Public Works Department of this Presidency by the transfer to it of the stations of Mhow, Indore &c from the Government of India.

Surat and Broach.—The only portion of this report requiring notice is that relating to the crumbling state of the Surat Castle walls. Should Ransom's patent process for solidifying stone be found to answer its promise, it might advantageously be applied to the prevention of the further disintegration of the Surat Castle walls.

Ahmedabad and Dacca.—The works in progress were mainly for military purposes, as were also, though on a larger scale, the works at Nusserabad and Neemuch. The Governor in Council directs that Lieutenant Maunsell's report should be transferred to the Financial Department, with the view of having a supply of copper coin sent to Mount Abou, if possible,

The deficiency in the copper currency is severely felt everywhere, and the general rate at which it can be procured appears to be only 15 annas for the Rupee, or 6½ per cent. discount. The expenditure on Public Works in Bombay and Sind in 1858-59 will be found at page 416 of Volume IV. of the "Annals."

MADRAS CIVIL DISPENSARIES

1859

Madras Records, No. LXVIII.

THIS Report, furnished by Dr Geo. Pearse, the Principal Inspector General on 6th November 1860, is finally reviewed by Government on 6th November 1861.

The returns show that the number of patients treated was 12,227 in excess of that of the preceding year. Of the twenty-five Dispensaries in which there was an increase, Triplicane is the most conspicuous, the number who had there obtained Medical aid and advice being above one-third more than that treated during 1858, and of those, about 15,000 were Mahomedans.

Mahomedans.	In-patients.	Out-patients.	Total.
Males	214	10,194	
Females	141	4,150	
	355	14,344	14,999

The apparent unwillingness on the part of the wealthier classes of the native community in the Presidency Town to recognize the claims of the Public Institutions established for the relief of their indigent countrymen, did not escape the notice of Government. Government says the progressive increase from year to year in the number of applicants for relief is a clear indication of the high estimation in which these charities continue to be held by the Natives generally, and of the decline of their former prejudice against the European mode of treatment, Medical and Surgical. The total expenditure on the Dispensaries was Rs. 98,054 and the average cost per patient six annas. The cost of European medicines, instruments, &c., is not included.

General Hospital, Madras—1066 European patients were

treated, of whom 37 died, 560 patients were treated in the *Medical*, and 506 in the *Surgical*, Wards. The mortality on the whole, including Medical and Surgical cases, was 3·47 per cent. A large proportion of sick are received at very advanced stages of disease, and when in a hopeless condition, so that the mortality cannot be considered very high.

Lepor Hospital.—141 patients were treated during the year; 57 were discharged, 25 died, and 59 were remaining at the end of the year. The mortality was high, but amongst a class of persons suffering from such an intractable disease as Leprosy, often in the last stage on admission, it must necessarily be so.

Native Infirmary.—The admissions during the past year were higher than in any year subsequent to 1852, but the deaths were fewer than the average. There were very few admissions from Cholera, but the majority of deaths as usual resulted from Diarrhoea, Atrophy, and old age.

The Idiot Hospital was overcrowded throughout the year, but fortunately no epidemic appeared amongst the inmates. The average strength for the year was 92. There were 121 admissions into Hospital and 30 deaths. The mortality amongst Idiots is considerably higher than that of Insane Patients treated in the Lunatic Asylum. *The House of Industry and Langur Khana in Triplicane* are incorporated and under the superintendence of the Commissioner of Police. Government contributes 400 Rs. monthly to the support of the combined Institutions, which afford relief to destitute and friendless Mahomedans who are prevented by age, disease or infirmity, from earning their own livelihood. At the date of the Annual Report for 1859, there were 17 inmates, and about 200 paupers receiving out-door relief. A second Dresser was appointed to this charity.

Male Asylum.—The health of the inmates during the past year was remarkably good. The average strength was 251, and of the daily sick was less than 3 per cent.

Female Asylum.—The average strength of inmates of this Institution was 215, and of the daily sick 6 per cent. Skin diseases were more prevalent than usual, and chicken-pox affected some 12 of the girls.

Lunatic Asylum.—At the end of the year 1858 there remained 51 patients in the Asylum, thirty-three cases were admitted, and many applications from the Mofussil were refused, for want of accommodation. The mortality was slight, only 4 deaths having occurred. Four patients were discharged cured, 5 invalided to Europe, 5 to the care of their friends, being improved by their residence in the Asylum, and sixteen were transferred.

Eye Infirmary.—There was an increase in the number of In-Patients and a slight decrease amongst the Out-Patients during the year.

In the *Lying-in Hospital* there was a decrease of 118 in the number of confinements as compared with the previous year.

THE CALCUTTA COURT OF SMALL CAUSES.

1860-61.

THE aggregate number of cases instituted during the year was 31,777, the average number daily being 125. The amount carried to the credit of Government on account of Fees, &c., was Rs. 1,39,165-11-8, while the total expense of the establishment was Rupees 106,782-8-11, leaving a balance of Co.'s Rs. 32,283-2-9 in favor of Government. Although the number of cases instituted in the past official year was less by 510 than that instituted in the previous year, the amount litigated exceeded by Rupees 43,936 that of the previous year, and the net amount credited to Government is the largest since the establishment of the Court. Of the 31,777 cases instituted, 31,094 were set down for hearing, of which 17,247 were actually tried, 13,048 having been decided in favor of plaintiffs, and 4,199 having been either dismissed or non-suited. 10,404 were compromised before being called on for hearing, 3,443 were struck off for non-appearance of the parties, and 179 remained undecided on the 30th April 1861. The Court was closed 112 days and sat 253 days.

The Lieutenant Governor pronounces the result satisfactory.



	1859-60.	1860-61.
Number of cases instituted, { English	6452	6524
{ Native	25835	25253
{ Total	32287	31777
Amount litigated, ...	935003 0 9	973939 4 10
Commission and Fees paid into Court on institution of Suits, ...	133317 7 6	139247 12 6
{ Net amount of Commission and Fees credited to Government on suits, ...	128892 15 3	136073 3 9
{ Ditto on Distresses for Rent, ...	1482 12 0	1529 8 0
{ Amount credited to Government on account of fines, ...	191 12 0	125 0 0
Amount credited to Government, { Ditto on account of unclaimed monies belonging to Suitors and Landlords, ...	1167 12 10	1431 14 3
{ Ditto on account of savings from salaries, sale of old Furniture, Records, &c., ...	8 15 6	6 1 8
{ Net total amount credited to Government in the Cash Accounts, ...	132144 3 7	139165 11 8
Amount paid into Court under decrees, ...	216926 14 10	220051 5 4
Amount paid out of Court on account of decrees, ...	216302 0 2	218821 13 11
Number of days on which the Court was open, ...	249	253
Average number of Cases instituted daily, ...	129.6	125.6
Cases under Rupees 10 ...	17032	16695
" " " 20 ...	6118	5791
" " " 50 ...	4869	5019
" " " 100 ...	2088	2100
" " " 200 ...	1205	1114
" " " 300 ...	483	510
" " " 400 ...	257	296
" " " 500 ...	235	252
Number of Summonses issued, ...	42877	42351
" Second Summonses, ...	757	834
" Subpoenas, ...	25414	24733
" Attachments, ...	378	455
" Writs of Execution, ...	8203	8088
" Bench Warrants, ...	25	18
" Copies of Judgments, ...	348	431
" Commitments, ...	668	509
Warrants to sue and defend, filed, ...	5088	5025
Judgments for Plaintiffs, ...	13657	13048
Judgments for Defendants, ...	1417	1726
Nonsuits, ...	2721	3443
Struck out and compromised, ...	14088	13847
Undecided, ...	156	179
Amount of half costs returned in cases compromised, ...	17889 5 3	18918 3 9

MADRAS PUBLIC WORKS.

1860-61.

Madras Records, No. LXXI.

THIS Administration Report is submitted by Lieutenant Colonel Horsley, Chief Engineer.

The total sum at the disposal of the Government for Public Works, *including establishment* computed at 17 lakhs, was 65 lakhs. The actual expenditure was Rs. 42,04,988 against Rs. 48,91,059 the previous year.

Districts.	Expenditure.		
	New Works.	Repairs.	Total.
Ganjam	38,681	53,461	92,142
Vizagapatam	20,859	26,517	47,376
Upper Godavery	77,976	.....	77,976
Godavery	1,03,129	2,13,237	3,16,366
Kistna	1,39,291	1,15,118	2,54,409
Nellore	1,23,356	1,97,574	3,20,930
Cuddapah	63,159	1,18,853	1,82,012
Bellary	1,03,712	1,27,967	2,31,679
Kurnool	39,077	41,747	80,824
Madras	63,049	1,76,573	2,39,622
North Arcot	40,172	1,21,204	1,61,376
South Arcot	41,854	1,08,630	1,50,484
Tanjore	28,491	2,59,856	2,88,347
Trichinopoly	54,570	1,18,388	1,72,958
Madura	28,862	50,652	79,514
Tinnevely	2,088	73,225	75,313
Coimbatore	52,564	92,717	1,45,281
Salem	80,211	1,07,128	1,87,339
North Canara	41,478	84,413	1,25,891
South Canara	13,261	23,413	36,674
Malabar	1,31,439	30,026	1,61,465
Presidency	3,41,250	74,633	4,15,883
Municipal Commissioners	.....	24,397	24,397
Bangalore	1,68,272	15,145	1,83,417
Wellington	1,46,666	6,647	1,53,313
Total	19,43,467	22,61,521	42,04,988

The expenditure is thus divided.

		<i>New Works.</i>	<i>Repairs.</i>
		Rs.	Rs.
Irrigation ...	...	3,98,940	11,26,242
Communications ...	...	6,35,104	8,93,148
Buildings ...	...	9,09,423	2,17,734
Municipal Commissioners	...	.....	24,397
Total ...		19,43,467	22,61,521

The sum expended on account of Permanent Establishments and Contingencies, amounted to Rupees 16,55,670, or Rupees 20,095 less than it was in 1859-60, and if from this amount there be deducted, in accordance with the views of Government, communicated in paragraph 5 of their Proceedings, dated 12th January 1860, No. 91, the pay of the classes noted below the proportion of the remaining sum, Rupees 15,08,135, to the expenditure on works will be nearly 36 per cent.

Covenanted Probationers from England ...	Rs. 10,281
Mechanical Engineers ...	" 41,154
Freight and landing charges ...	" 23,877
Conservancy and Channel Establishments	" 72,223
Rs. 1,47,535	

Traffic.—The registers of traffic kept at the head locks of the three main canals in the Godavery District show a very great increase in the value of goods passing through them during the past year, compared with that of the preceding year, as will be seen from the following Statement :—

	Boats.	Tonnage.	Passenger Boats.	Value of Goods.	
East Main Channel, Dow- laishwarum Locks.	9,510 12,794	1,44,150 1,91,910	1,976 2,102	18,29,560 32,73,888	In 1859-60 ,, 1860-61
Increase ...	3,184	47,760	126	14,44,328	
Central Main Channel, Bob- ber Lunka Lock.	2,514 2,825	37,710 42,375	387 715	4,03,092 4,86,713	In 1859-60 ,, 1860-61
Increase ...	311	4,665	328	83,621	
Western Main Channel, Vi- zaishwarum Lock.	9,272 10,723	1,39,080 1,60,843	1,806 4,586	13,78,408 21,05,744	In 1859-60 ,, 1860-61
Increase ...	1,451	21,763	2,780	7,27,336	

This result is highly satisfactory and illustrative of the value set upon these means of cheap locomotion by the people of the District. In the Kistna District the value of the traffic in the Main Canal at Bezorah on the left bank of the river was Rs. 42,743 in excess of that of 1859-60, but in that at Seeta-nagarum on the right bank there was a falling off during the past year of Rupees 56,101 owing to the navigation having been stopped from the end of September 1860, to the close of the official year by the silting up of the river in front of the Lock. Upon the Eastern Coast Canal the traffic increased both as

regards Salt and miscellaneous produce. In 1859-60 the amount of toll collected was Rupees 31,795-13-0, whilst during the past year it was Rupees 45,199 $\frac{3}{4}$.

In 1859-60	...	...	Rs. 1,17,041
In 1860-61	...	...	„ 1,59,794
			<hr/> 42,743
In 1859-60	...	...	Rs. 73,114
In 1860-61	...	...	„ 17,013
			<hr/> 56,101

At the Paumben passage there was also an increase in the number and tonnage of the vessels passing through it, and the revenue derived from Pilotage, &c., was Rupees 3,300 in excess of the sum realized during the preceding year. In the Godavery district the exports by sea were the highest yet known, having reached the sum of Rupees 50,28,235, while the Imports were Rupees 6,41,500. By land the exports amounted to Rupees 6,70,274, and the Imports to Rs. 691. The activity on the Canals was very great. Through the Dowlaishwaram, Bobberlunka and Vizaishwaram Locks in the Godavery Canal of boats in 1853-54 the number passing was 995, and in the past year it reached 7,400 or 3,234 more than in 1859-60, showing most remarkably the value set upon cheap locomotion. The rainfall was 40 inches, and the supply of water in the river during the hot weather was larger than in 1859-60, on the 10th May 1860, the discharge was 2,30,000 cubic yards per hour, or 30,000 cubic yards more than on the same date of the previous year. The increasing prosperity of the District is most vividly marked in every way. The Land Revenue reached nearly 34 lakhs of Rs. being an increase of 74 lakhs over the previous year, though it should be remarked, that out of this revenue, about 5 lakhs are due to the addition of five Taluqs of the old Masulipatam District, and the present state of the District compared with its condition previous to the execution of the improvements may be briefly summed up as follows:—1st.—The Revenue has been doubled, 2nd.—The Goods traffic increased thirty-fold, 3rd.—The Passenger traffic increased seven-fold, and 4th.—The Export traffic increased twelve-fold.

Colonel Horsley asks to be allowed to discontinue the submission of this Report as it is in many instances a needless repetition of facts detailed in the Administration Report

usually submitted on the 15th June of each year for transmission to the Government of India. In reviewing this Report on 24th December 1861 the Madras Government says :—The Government of India have lately granted 1,50,000 Rupees for Cotton Roads, which will only serve for the crop of this year, but twice that sum was available last year and would have facilitated the export of its crop. The Government trust that the repeated orders lately issued will have a salutary effect. Colonel Horsley must strictly require his subordinates to give him timely intimation of balances likely to be available for transfer to other Districts. The Madras Government agrees to dispense with this general Annual Report for the future if there is a little improvement in the preparation of the Administration and Progress Reports. On a former occasion the Government declined to dispense with the Annual Report because the Administration Report being necessarily brief, various particulars required for the information of the Local Government could not be given in it. Hereafter, when the Chief Engineer is also Secretary to Government, an Annual Report (besides the Administration Report) is all that will be required for the use of the Home authorities and can be prepared in the Government Office, Department Public Works, from District Reports and Returns.

REPORT ON THE GENERAL CONDITION
AND PROSPECTS OF AJMERE AND MHAIRWARA.

1860.

N. W. P. Records, Part XXXIV.

THIS report is submitted to the North-Western Government, through Major Eden, the Officiating Commissioner, by Major B. P. Lloyd, the Deputy Commissioner. It shews the results of a lengthened tour of inspection through all parts of Ajmere and Mhairwara.

Climate, Crops and Tenures.—The uncertainty of rain in the districts is proverbial. The burst of the monsoon on 29th July 1859 caused a very heavy and prolonged fall, amounting, at Ajmere, to 10·8 inches in 2½ hours. The tanks were everywhere filled to overflowing, and some damage was sustained. The Anna Saugor Lake at Ajmere rose to a height only attained

during the unprecedented flood of the previous year. A table shews the average fall of rain to have risen from 37 inches only in Ajmere in 1855 to 35·6 in 1859. It affords proof of the great utility of the reservoirs which have been constructed by Government, in retaining in the districts a large portion of the annual fall, which would otherwise escape to the ocean. Water is now to be found in Mhairwara within a few feet of the surface in high ground, where formerly it was wholly unattainable; and wells are now sunk with ease and success in places where, but a few years ago, all efforts to attain a supply of water would have proved vain. The submersion of assessed lands caused loss to the cultivators. Although the Khureef sowings partially suffered from excessive moisture, the Rubbee was generally abundant. The Putwarees' papers were so defective that in 1857, a scheme of grouping the Putwarees on the "Hulkabundee system," was drawn up, but little reform was effected. Believing not only that the emendation of the Register of proprietary rights, as a matter of record, is required, but that in many instances an early re-distribution of the jumma, in accordance with the now existing state of things, is urgently called for, in order to apportion the rental of individual proprietors to the altered condition of their holdings, Captain Lloyd drew up a set of rules to enable the Putwarees to prepare a new record and register of fields.

The amount of prosperity caused by the late Colonel Dixon's administration may be seen from the following instance. The Ajmere village of Neearun in pergunnah Rajguri, was formerly a small hamlet, which, with difficulty, paid Rs. 600 per annum to Government, its lands being altogether dependent on the rains. Colonel Dixon constructed a noble masonry Bund, at an outlay of Rs. 32,000 across the bed of a small river, (the Dhye) forming an extensive lake, by which a wide extent of unproductive land was brought under the plough; and gradually under his fostering care, a flourishing village has sprung up now containing 1,200 inhabitants. The revenue paid in 1843-44 was only Rs. 643, it is now Rs. 7000.

Embankments.—On these the prosperity of the district depends. The repairs executed amounted to Rs. 12,998 last season and those of 1860-61 will amount to Rs. 3,677 from villages, and Rs. 10,884 from the "Tulao Fund" for 81 tanks. The embankments were constructed by the late Colonel Dixon, entirely through the agency of natives. The Tehseeldars superintended all the works in progress in their respective jurisdictions, and similarly attended to all current repairs. Satisfactory progress was made during the past season in minor works of irrigation, such as the digging of wells, and throwing up small embank-

ments called "Narees." In almost every village there was something of this nature, either in progress, or in contemplation.

General Prosperity.—Having served from 1849 to 1853 as Assistant under the late Colonel Dixon, Captain Lloyd compares their present state with his former recollections. A very marked increase in the land under cultivation is apparent in the pergunnahs of Ajmere and Rajgurh in Ajmere, and generally throughout Mhairwara. With some few exceptions the villages exhibited symptoms of increasing population, in the appearance of new houses, and it was rare to hear of recent desertions. This improved state of affairs is generally attributed to the construction of reservoirs. A village provided with a good tank will certainly thrive under ordinary circumstances. This is strongly exemplified in villages inhabited by Goojurs, who formerly picked up a precarious subsistence, by grazing cattle, depending upon the seasons for forage, and for the supply of pulse grown in the rains, for themselves and families. Speaking of one of these villages in pergunnah Rajgurh, a Putail one day observed to Captain Lloyd, that the men of Brighceewas, who in old days had not a kummul (coarse blanket) to cover them, could now afford to dress in broad cloth. In Mhairwara, in the pergunnah of Beawur, the great increase of cultivation within the last ten years is very striking. Lands once covered with briars and low jungle, presented this year sheets of luxuriant cultivation. Indeed, the whole valley of Beawur, which forty years ago is well known to have been a wild and almost uninhabited jungle, was last September covered with magnificent crops up to the very basis of the adjacent hills. Nothing can more plainly bespeak the great social change which has been wrought in the inhabitants of Mhairwara than the deserted and ruined state of their *old* villages. These were formerly invariably perched upon the hills, in almost inaccessible places, for the sake of safety from the attacks both of their fellow-men and of wild beasts, and most of them were protected by some sort of rude fortifications. The adoption, however, of habits of industry and agriculture has made the retention of such dwellings alike unnecessary and inconvenient, and hence new hamlets are everywhere springing up in the valleys, while the old habitations on the heights are fast falling to decay. A stranger indeed can with difficulty comprehend the change which has taken place, but to hear an old Putail in Todgurh describe his recollections of the state of that pergunnah in his youth, and, at the same time to look upon the rich valleys and abundant crops which now everywhere meet the eye, could not fail to excite the admiration and wonder of any man. Industry and peace have

taken the place of rapine and plunder; rising villages and rich cultivation have sprung up in room of dense jungles; and this within the space of forty years, and chiefly through the instrumentality of one man! Truly it is a triumph of which the Government may well be proud, and which will preserve Colonel Dixon's memory for centuries to come among the Mhairs. The Mhairs are most industrious and for the last few years the price of the opium alone, produced in the Todgurh pergunnah, has more than covered the total amount of the Government demand. The opium bears a high character as to quality, and is sold at Palee or Nyanuggur for the Bombay market. The cultivation of the poppy is extending rapidly.

Rent Free Lands.—In the early days of our management of the Mhairwara tracts, small grants of rent-free land were made by Colonel Hall, the first Superintendent, and by the late Colonel Dixon, to the Putails, or heads of villages, as an inducement to them to bring lands into cultivation. These grants usually consisted of less than four beegahs (nearly two acres) each, and at the settlement they were confirmed to the respective holders for life. The elders prayed Captain Lloyd for their restoration, not on account of the assessment levied upon them, but because the possession of a bit of rent-free land confers dignity and status upon the Putail. The total rent-free holdings are only 97 beegahs 7 biswahs.

The "Mapai" tax yields Rs. 1,100 per annum. It is a source of much annoyance. It is a tax upon *barter*. Half a pice or about 3 pie is taken per Rupee, on the value of all goods bought and sold. It is taken on grain, cloth, opium, produce of all sorts, groceries and cattle. Cows are the only exception. It interferes with every transaction of life, and further necessitates the maintenance of 133 Bhulloneas, or Agents, all with Government seals. This tax is confined to Mhairwara, having long ago been abolished in Ajmere. Captain Lloyd prays for its abolition.

Captain Lloyd records the following incident. "A rumour had gone abroad, that the portions of the district appertaining to Mewar and Marwar were about to be restored to the management of the respective Durbars. This was brought to my notice by a number of the Putails and Elders of the Todgurh and Saroth pergunnahs, who waited upon me one evening in a body, to ask if the report was true. They stated, that the British were the first nation to whom they had submitted; that they had been happy and comfortable under their Government, to which they would adhere under any and all circumstances, but that it would be impossible for them to submit to the change of rule which they had heard was impending. My assurances, that

no such measure was in contemplation, were received with evidently genuine satisfaction. There is little room to doubt that any such change would be followed by an immediate return to their old predatory habits."

The Secretary to Government generally approves of Major Lloyd's acts, and agrees to his recommendations.

REPORT ON A SPECIES OF PALSY IN ALLAHABAD.

N. W. P. Records, No. XXXIV.

IN the cold season of 1856-57 Mr. Court, the Collector of Allahabad, when in pergunnah Barrah on the right bank of the Jumna, was struck by the number of lame persons that he met in all directions. On enquiry he found in village after village that there were several cripples in each. He was also informed that the disease was of recent origin, and that it was attributed by some of the people to their living on bread made from Kessaree dal, and by others of them to the unhealthy qualities of the wind and water of the pergunnah.

BARRAH.

The Disease.—Mr. Court accompanied Dr. James Irving to Barrah for the purpose of enquiry into the nature and history of the malady and this Report is the result. Of 63,400 persons in the pergunnah in the month of January 1857, there were in the pergunnah 2,028 persons afflicted with Paralysis, or 1 in 31.30 of the population as it stood in 1853 or 3.19 per cent. The disease is found in Banda and elsewhere. The effect of it is thus described. Men who had gone to bed quite well, had awoke in the morning feeling their legs stiff and their loins weak, and from that time they had never regained the use of their limbs. At first the lameness was trifling, and amounted only to unsteadiness of gait and slight stiffness, chiefly of the knees. After a time the muscles of the thighs commenced to ache and feel weak, and also the loins; in no case, however, did those examined admit that they had then, or ever, had severe pain either in their limbs or loins. They all ascribed their disability to their feeding principally on Kessaree dal, but they also seemed to imagine that in order to produce the disease, there must be another circumstance superadded, viz, the deleterious quality of the water

during the rains. So far as could be gathered, it was not from drinking the water that they fancied they took harm, but from getting wet by it. More than one dwelt on the circumstance of his having been exposed to rain, either while ploughing, or while tending sheep, and others spoke of having been working in jheels just before they became lame.

Causes.—The district is, in part, a vast swamp. The village of Barraha stands high, and in the rains, so far as the eye can reach, nothing is visible but one vast sheet of water. The soil is clayey and the water holds in solution so large a quantity of saline matter, that it would prove very deleterious to any animal habitually drinking it. The people are poor, and the land tax high. The form of Palsy is ascribed by the natives themselves to their making large use of a particular kind of grain which they call Kessaree dal. It is the *Lathyrus Sativus* of English botanists. It is not unlike grain, and is common enough all over the country, being often sown along with wheat or barley, and cut green for cattle. In Barraha the Kessaree dal is ground and made into bread. It is sometimes mixed with some other grain, as barley, but is generally taken alone, the people in fact not being able to afford any thing else. It is the cheapest food procurable in Barraha, and forms the chief support of the inhabitants from March till October. On the 7th February, in the bazaar of Barraha, wheat sold at the rate of fourteen seers per rupee, while Kessaree dal was at the rate of twenty-two. It grows without any labour or trouble, and on damp, swampy ground that will bear no other crops. The land is merely ploughed once, and the seed thrown in, or the plant sows its own seed, which germinates freely next year, without any attention or labour being required. The same plant produced similar results in Sind, according to Dr. K. W. Kirk in his "Medical Topography of Sindh." Colonel Sleeman states, that in part of the Saugor Territories in 1829 and two succeeding years, the wheat crop failed from various reasons, and during these three years the Kessaree remained uninjured, and thrived with great luxuriance. In consequence it formed the only food of the people during the three years of famine. In 1831, they reaped a rich crop of it from the blighted wheat fields, and subsisted upon its grain during that and the following years, giving the stalks and leaves only to their cattle. In 1833 the sad effects of this food began to manifest themselves. The younger part of the population of this and the surrounding villages, from the age of thirty downwards, began to be deprived of the use of their limbs below the waist by paralytic strokes; in all cases sudden, but some more severe than others. Dr. Thomas Thomson, of the Cal-

cutta Botanic Gardens, states that he had met with examples of paralysis produced by the use of *Lathyrus Sativus* in Thibet, as he has noted in his Travels in the Himalayahs. Similar effects have been observed in Europe, to follow the eating of other kinds of grain produced by the same great natural order of plants, the Fabiaceæ. Thus Doctor Taylor alludes to *Lathyrus Cicera*, and *Ervum Ervilia* (bitter vetch), as occasionally rendering bread poisonous. In some parts of the Continent, a bread is made from the flour of the *Lathyrus*, which is so injurious in its effects, that the use of it has frequently caused its prohibition by law.

Treatment.—Dr. Irving says some eight cases were under observation at the Dispensary; six after staying a month, went away, as they did not like the blisters, and other means of cure employed. “I tried in some of them, strychnine; in others, blisters frequently repeated; in others, tonics. To all I gave generous diet. Two seemed to be somewhat benefited, and could walk better; but in the others, there was no perceptible improvement. The natives of Barrah do not appear to have any kind of treatment except rubbing the affected limbs with various liniments, one of which is composed of oil, the juice of garlic and opium. They also fancy that eating pigeon’s flesh is of use. But what is most remarkable is, that they are fully persuaded that eating Kessaree dal causes Palsy, and that it is an incurable disease; yet, notwithstanding, they continue to live on this grain, as their fathers and grandfathers did before them.” Dr. Irving submitted specimens of all the grains found in the bazaar to Dr. T. Thomson who reported. “The different grains sent, seem all good, and there is no doubt, I believe, that the *Lathyrus* is the cause of disease.”

Remedy.—Dr. Irving would induce the people of this and of other pergunnahs, in which the disease prevails, to abandon the cultivation of Kessaree dal, and to substitute some other grain. The drainage of the country also would be an immense boon, and would render the land available for many crops, which it cannot now bear. He recommends the establishment of a Branch dispensary.

KHYRAGURH.

Dr. Irving found a similar state of things in Khyragurh on which he writes a separate Report. Of a population of 70,800 there were 889 or 1·25 per cent. paralytic. A peculiarity of the disease is, that it affects men more commonly than women. The disease prevails also in Mirzapore and Patna. The sepoy part of the Army which accompanied General Elphinstone on the first expedition to Cabul, suffered much in consequence of eating

Kessaree dal. They well knew the deleterious effects of its constant use; but as they were often reduced to a pound of attah as their daily ration, they were very glad to make up the deficiency with the dal; Kessaree dal is found in Bengal, but is not employed as food to the almost total exclusion of all other grains, as in Barrah and Khyragurh. It seems to be very generally eaten by way of a change, as in the Punjab. Dr. Irving supposes that the disease in the horse known in Bengal, and other parts of India, which affects the spine in the loins, and appears to be of a paralytic nature, is produced by the horse feeding on gram largely adulterated with Kessaree dal.

The Government of the North Western Provinces thanks Dr. Irving for his "interesting reports," and directs that they be published in the hope that they will attract the attention of other Medical Officers, and lead to investigations being undertaken in other parts of the country. Apparently the Palsy, which the use of the Kessaree dal as food superinduces, is practically incurable, and the only means can be beneficially used, must be of a preventive character; that is to say, such means as will improve the condition and circumstances of the people, whose poverty drives them to support life by the use of this cheap, but most deleterious vetch. It may be hoped that the revision of settlements in Khyragurh and Barrah, and the large reduction of the Government demand which it will involve, will contribute to this desired end.

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KHELAT

1857 TO 1860

Indian Records, No XXXIV

THIS Report on the affairs of Khelat from 1857 to 1860 is drawn up by Major H. W. R. Green, Political Agent at the Court of H. H. the Khan, and sent to Brigadier General John Jacob, C. B., Political Superintendent and Commandant on the Frontier.

POLITICAL AFFAIRS.

In December 1856 Major Green joined at Gundava the Court of the late Khan, Meer Nusseer Khan. In January 1857, having been appointed Assistant Adjutant General to the Cavalry Divi-

sion of the Persian Expeditionary Force, he left His Highness' Court and proceeded to Persia. For the short time he was with His Highness, he formed a very favorable opinion of His Highness' personal character, but not of his advisers; one being a merchant, by name Faiz Ahmed; the other a bunniah, named Gungaram: the former, His Highness, soon after his departure, dismissed. During Major Green's absence in Persia, Nusseer Khan died on his road up to Khelat from Gundava, and it was given out, from the effects of the disease he was known to be suffering, from stone in the bladder. On the death of Nusseer Khan being made known, the Chiefs of Beloochistan assembled at Khelat. Three persons appear to have been brought forth as claimants to the throne—Azim Khan, brother of Mehrab Khan; Azim Khan, his son, and nephew of Mehrab Khan; and the present Khodadad Khan, half-brother of Nusseer Khan, and son of Mehrab Khan. The first-mentioned is an old man, perfectly decrepid, and worn out from dissipation; his son was considered out of the direct line; the choice therefore fell on Khodadad Khan, on whose head the turban of sovereignty was bound by Taj Mahomed, Chief of Jalawan. Thus this youth, then about sixteen years of age, was taken direct from strict domestic seclusion, and placed to rule over as turbulent a set of Barons as could be found in our own country in the days of the Plantagenets. A set of men called Khanzadas, or household slaves, hold the confidential offices round the Khan's person. The following individuals accordingly assumed the offices round the Khan on his ascending the throne:—Darogah Gool Mahomed; his sons, Moola Mahomed and Atta Mahomed; Shagassce Wulleo Mahomed; his brothers, Taj Mahomed and Goolam Jan Abdool Uzzeez, Naib of Mustoong and several others of inferior note. A bunniah named Gungaram held nominally the office of Head Moonshee, while a crowd of his sons and nephews held the offices of Treasurer, inferior Moonshees, &c. Darogah Gool Mahomed was the oldest of all these persons, being aged seventy-five years. He and Gungaram managed beforehand that the young Khan should fall into their hands and be ruled by them. The first thing to be done was to sow distrust between the Khan and his Chiefs, who were encamped outside the walls of the City. When the Darogah Gool Mahomed considered that every thing was ready for a *coup d'état*, he suddenly at day-break, on the morning of the 17th March 1857, sent the Khan's Artillery, and a body of some 400 Regular Infantry in the pay of the late Khan, out of the Fort, and caused them immediately to open fire on the camp of the Chiefs. The Chiefs were totally unprepared, and were driven from the

valley with loss. On the side of the Khan, a Chief of some note, named Morad Khan Moosane, was killed. Those who happened at the time to be on the side of the Khan, felt themselves bound to remain ; so thus father and son became opposed to each other ; and the Darogah had repeated the very same act which he had performed upwards of forty years before, in the days of Mehrab Khan. The young Khan was informed that these men were plotting to dethrone him. The Chiefs, enraged at their treatment, assembled with their retainers at Sorab, about 40 miles south of Khelat, to the number of five or six thousand men, but not finding provisions there, they returned to Khozdar, one of the Khan's granaries, where they levied taxes, on the bunniahs and shop-keepers. They were here also joined by Azad Khan of Kharran.

At this crisis, Lieut. Macauley of the Sind Irregular Horse was despatched with twelve troopers by Major Merewether to Khelat. There he remained a few days when it was arranged that the Khan should accompany him on his return to Gundava, and that the whole of the Chiefs of Beloochistan should also proceed there. Affairs were in this stage, when Major Green joined His Highness at Gundava in November 1857. The outraged Chiefs pointed out that none of their lives would be safe, nor could the country ever be quiet, if the young Khan were to retain about his person such advisers as Gool Mahomed and Gungaram. On one occasion when the Darogah was told by Lieutenant Macauley that his only wish was to assist in establishing good order in the country, his reply was that, considering the state of India, the British Government would be better employed in looking after their own country and putting it in order. Major Green's chief object was to bring about an interview between General Jacob and the Khan, but Gungaram obstructed him. The first interview between the Khan, the General and Mr. Frere, Commissioner in Sind, took place at Shahpoor, when no business was transacted with the Khan. The Khan and his Chiefs were assembled and spoken to by the General and Mr. Frere on two occasions. The Khan then appointed Shagasseec Wullec Mahomed, the most fit person, as Wuzeer. But on the Khan's return Gungaram asserted his old influence over him, till Major Green insisted on his removal from the Khan's service. Major Green then made several attempts to unite the Khan and its Chiefs ; but, although in Major Green's presence a formal reunion had taken place, still there was no sincerity on either side.

News arrived that the Provinces of Kedj and Punjgoor had thrown off their allegiance to the Khan, and elected Azad

Khan the Chief of Kharran : there were also rumours of certain preparations on the part of the Jam of Beyla. But now letters begin to pass between the Khan and the Darogah Gool Mahomed, and it was doubtful if it would be safe for Major Green to accompany the Khan from Gundava to Khelat. However he preceded the Khan to Khelat. On reaching Angera, situated at the top of the Moola Pass, he received intelligence from Khozdar of the arrival, in Beloochistan, of Futteh Khan Ahmedzie, brother of the late Shah Newaz Khan, who now appeared as a pretender to the throne of Khelat. This man's brother, Shah Newaz Khan, was placed by the British on the throne of Khelat after the death of Mehrab, and was afterwards expelled by the Brahooes and the son of the late reigning Prince elected in his stead. Since the expulsion and death of his brother, Futteh Khan had lived at Larkhanah with his mother, who is in receipt of a small pension from the British Government. He now proceeded from Larkhanah, accompanied by a few horsemen, to the Jam of Beylah, and from thence was sent to Azad Khan, Chief of Kharran. But Major Green, taking into consideration the state of India, and believing that at that time a rebellion on our border would be fomented in every way by the Affghans and Persians, and that it would in all probability lead to most serious results along and within our Frontier Provinces, and knowing also how destitute Sind and the whole Frontier were of troops, determined to make every possible effort to support the present Khan. He induced the outraged chiefs not only to oppose the present Khan, but to support him. The Chiefs of Beloochistan marched to Punjgoor ; Futteh Khan and Azad Khan fled to Candahar ; the Khan's Provinces in Mekran were regained ; and Azim Khan and Esa Khan Gilitkee, the rebel Chiefs, brought prisoners to Khelat.

Darogah Gool Mahomed still continued to exercise an evil influence on the young Khan. He had poisoned his predecessor, Nusseer Khan, and had obtained access to the present Khan, then in confinement in the harem, where he made both the present Khan, and his mother, Beebee Cudjoo, a woman of low birth and infamous character, swear on the Koran, that, in case of the death of Nusseer Khan, whom they proposed to destroy, and the present youth being placed upon the throne, the Darogah should be appointed Wuzeer, and, in fact, be virtually Khan of Khelat. There can be no reasonable doubt that the Darogah Gool Mahomed caused the death of Lieutenant Loveday, the former Political Agent.

About this time matters were further complicated by the arrival of an Envoy from Candahar, said to have been sent

by Dost Mahomed Khan, to inform His Highness the Khan that Azud Khan was under the protection of the Ameer of Afghanistan, and that any violence offered to him would meet with the severe displeasure of Dost Mahomed Khan. Silently Major Green defeated all the attempts of the Darogah to oppose him, to influence the Khan and sow dissension between both and the Chiefs. This was the state of affairs when Major Green received information of the arrival of his brother, Major Malcolm Green, from Hindostan, with a squadron of Sind Irregular Horse. The detachment arrived at Khelat on the 1st August, much to the delight of the poor, the merchants, and lovers of peace ; but to the disgust of the evil-minded.

On the return of the Chiefs of Beloochistan Major Green complimented them on their fidelity to the Khan, and, before him, presented the principal Chiefs with slight presents, to show his appreciation of their service : this took place with the sanction, and in presence of the Khan. The Chiefs behaved very well, they thanked Major Green for what he was trying to do for them ; and repeatedly told him that his presence alone had saved the country from the wildest anarchy, and prevented its falling into the hands of the Affghans. Affairs being, at least for a time, satisfactorily settled in Mekran, Major Green strongly advised His Highness to make preparations to proceed against the Murree tribe situated in the hills to the north-east of Cutch, who had thrown off their allegiance to him ; who had for the last year closed the Bolan Pass, plundering the caravans proceeding by that route ; and who were setting all authority at defiance. Thus too would all his Chiefs and clans be collected around him.

GEOGRAPHY, TRIBES, GOVERNMENT, HISTORY, &c.

Boundary of Khelat.—The Khan's dominions are bounded on the north by the Affghan Province, Sharawuk, and the desert of Sristan ; to the west the same desert, and the Persian Provinces of Mekran—a line drawn from Nooskee, a town in the north-west corner of the Province of Sarawan, down southward through Punjgoor, Kedge, to the sea, would define the present western boundary. In the days of the great Nusseer Khan (1783) the country, as far west as Bumpoor, owed allegiance and paid revenue to the Khan of Khelat, but these have gradually fallen away, until the Provinces of Punjgoor and Kedge acknowledge but a feeble allegiance ; and an attempt this year was made by a partisan of Persia, Azad Khan of Kharran, to detach them entirely from the Khan. The Persian forces during the last war advanced near to Punjgoor and Kedge, Sibb, Jalk, and Bumpoor, and all the Provinces west of Shiraz, are

still in their possession, and acknowledge allegiance to the Shah of Persia. The eastern boundaries are the Murree and Boogtee Hills and Sind. To the south is the sea.

Tribes.—There are no written records in the country, and the only information to be gained is from confused traditions. All the tribes claim to be of Arab origin. Most of the Belooch, and many of the Brahoos Kurds are of Arabic origin, and came into the country considerably later than others. The Gitchees of Punjgoor are said to be of Rajpoot origin, and certainly, in appearance, they materially differ from many of the others. Placing the number of tribes and their divisions at three hundred and eighty, or four hundred, is pretty near the mark; some of these may only consist of twenty people, but their Chiefs are as proud, and indignant at any slight, as if they were followed by twenty thousand men.

Beloochistan Proper, or, as the Brahoos call it, the Kohistan, is divided into two distinct Provinces—to the north Sarawan, to the south Jalawan. The whole of the tribes are divided between these two Provinces, those of Sarawan ranging themselves under the banner of the Chief of that Province, and those of Jalawan in a like manner under that of the Chief of Jalawan. The Raisanee tribe always furnish the Chief, or Rais, of this Province; the Zehree that of Jalawan. The Chief of Sarawan, on all state occasions, takes the right of His Highness the Khan, and the Chief of each clan take his place according to the position his tribe holds amongst the family of tribes of Sarawan, all on the right. They are so jealous of their position in this respect, that one Chief sitting above another, frequently leads to bloodshed in presence of the Khan himself. The Chief of Jalawan takes the left, and his clans are arranged in due order; each of these Chiefs has his standard, kettle-drums, and minstrels or bards. The standard of Sarawan is red—that of Jalawan yellow; in camp they are planted in front of the Chief's tent—on the march they are carried before him. When either of these Chiefs is by himself, the *nagara*, or kettle-drum, is beaten at stated times during the day; but when they accompany the Khan, the drums of His Highness are alone allowed to be struck. The tribes of Sarawan generally hold a higher social position than those of Jalawan, notwithstanding that the latter are nearer the British frontier. Many are traders, particularly the men of the Mamoshie tribe, and horse dealers, proceeding to all parts of India, Bombay, Madras, and Calcutta. The members of these Sarawan tribes are also individually better clothed and armed than those of Jalawan, and contain more mounted men. There is a saying in the country, that Sarawan is the Khan's sword, Jalawan his

gun ; the former priding themselves as swordsmen, the latter as good shots. Sarawan is rich in produce of every sort. Wheat, barley, and delicious fruit of every description abounds, and it altogether forms a strange contrast to its sister Province of Jalawan. The present Chief of Sarawan and the principal Noble of Beloochistan is Moola Mahomed, a young man of excellent address and manners ; he is not on good terms with the present Khan.

The Province of *Jalawan*, the southern Province of Beloochistan, is inhabited by clans who differ much from the above in their manners and habits. They are dispersed amongst the mountain ranges of the Provinces, living under camel-hair tents and in caves, their principal employment being to tend the innumerable flocks of sheep who graze on the hill-side ; they are generally very poor, and ignorant to a degree hardly to be believed ; they know little of the value of money—in fact *refuse* to accept it, and will exchange a goat for a yard of the most common cloth. The present Chief of Jalawan is Taj Mahomed, whose manners and general bearing are characteristic of the tribes of which he is Chief. Although rough and plain-spoken, I have put much faith in his word, and have had no reason to regret it.

To the south of the Province of Jalawan comes the small one of *Beyla* or *Sas*, governed by the Jam. This Chief has for many years been trying to throw off his allegiance to the Khan of Khelat.

The Military Force of Beloochistan entirely depends on the collections of the tribes. Sarawan and Jalawan are sub-divided amongst the innumerable Chiefs and the clans into small estates, each Chief holding his estates free of tax, on condition of furnishing a certain quota of men for military service when called upon by the Khan. If the Khan and the cause be popular, there is little difficulty in collecting the quotas, or even double the actual number bound to serve ; but if the Khan or cause be unpopular, it is with the greatest difficulty a man can be obtained. When the British entered Khelat territory, and Mehrab Khan called his tribes and Chiefs around him, but few obeyed the call. The British force advanced unopposed to the walls of Khelat, and at the time of the assault, there were not five hundred fighting-men in the City. It is seldom an attempt is made to collect all the clans of the country, the expense to the Khan being very great, he having to feed each man as long as they may be collected, as also to make presents. Blood feuds of long standing exist. During the reign of the great Nusseer Khan, who was most popular and liberal, the Prince was able to assem-

ble forty or fifty thousand men, but of late years twelve thousand was a fair estimate, perhaps too large, if any thing. Their arms are matchlock, sword, and shield, and the troops are mostly infantry. The Sarawan tribes might muster eight hundred horsemen, and the Belooch of Cutchee, Rinds, Muzzees, Doombkees, &c., one thousand more ; in the plains they would be contemptible foes, as a good regiment of horse might ride through an army of them, but in their hills and passes they would be formidable ; they are generally excellent shots, and pride themselves on being mountaineers.

Manners and Customs.—The most remarkable trait among these wild tribes is their hospitality, and, as amongst the Arabs, a guest is held sacred. Major Green says.—“ In their manners I have found the lower classes simple, respectful, and cheerful fond of joking, &c., and in manner very different from the insolent swagger of the Affghan. The Chiefs are generally well-mannered and polite, although proud, independent, and plain-spoken, jealous of each other, and all, high and low, credulous and superstitious. All are most tolerant with regard to religion, in fact are careless in its observance. The women of the country also hold a much higher position than I have ever observed in any Mahomedan country.” Slavery is very common in Beloochistan, and there are few families of any pretension to respectability who do not possess a certain number of slaves, male and female. Many are brought yearly from Muscat, others from parts of Mekran ; and some few high-priced female slaves are brought from Affghanistan : they all appear to be well cared for, happy, and contented.

Revenue.—The only revenue derived by the Khan is from certain towns and villages in Beloochistan and Cutch Gundava, such as Mustoong, Khelat, Gundava, &c. The duties on trade and caffilas form another source of revenue ; a certain amount is also yearly due from the Provinces of Punjgoor and Kedge ; but this is merely nominal. A good deal of the land revenue is paid in grain, the land belonging to the Khan in the Province of Sarawan is generally farmed to some bunniah at Khelat. Major Green does not estimate the whole revenue accruing to the Khan at more than three lakhs.

Health and Climate.—Mr. H. Wakefield, Assistant Surgeon in the 3rd Regiment of Sind Irregular Horse, reports that the average daily number of patients in the squadron was three. There were five or six patients daily, from among the people of Khelat during three months, but this is no criterion. The town is situated on a slope of a hill to the west of the valley. Like most native cities, it is entirely devoid of all drainage, the houses

closely pushed together, a small space between each row forming a confined and ill-ventilated lane, into which is thrown refuse. This is left to rot and so becomes a hot-bed for fever. The deaths from fever are numerous. Ophthalmia is common. The air of Khelat is peculiarly dry and pure, owing to its great height above the level of the sea, nor is there any heat during the hottest months that can be called oppressive; throughout the summer there was invariably a gentle south-westerly breeze blowing, adding much to this delightful climate, which, I think, is similar in many respects to that of the most favored countries in Europe. Almost all the flowers and fruit trees that grow in our European gardens are to be met with. Amongst the most prized are the vine, apricot, apple, and mulberry—the former is indeed excellent. The supply of water is both abundant and pure, it rises from a rock in the neighbourhood, and is sufficient in quantity for the purposes of the cultivators: it is carried to the extreme end of the valley by an aqueduct.

POLITICAL AFFAIRS CONTINUED.

On 26th March 1859, Major Green resumes his narrative of affairs. On 21st January, the Khan's troops to the number of 4000 horse and 4000 foot left Baugh for the fort and town of Kahun, the head-quarters of the Murree tribe, the fort he destroyed. The Lehee tribe of Brahoos secured one of the guns captured by the Murrees from a British detachment in the disastrous affair of Nuffook in the year 1839. This gun, a twelve-pounder brass howitzer, was despatched on a camel, under escort of a small body of Belooch horse, to Jacobabad, where it arrived without accident. The Murrees now assembled in force at Mamood, whither they were pursued and forced to surrender. They professed their willingness to accede to any terms offered to them, and to acknowledge the Khan as their lawful Prince, and also offered hostages for their future good conduct. The Murree tribe had long been the terror of the plain, and, since the disaster which befell the detachment of British troops under Major Clibborn in 1839, had been looked upon as invincible. Few had ever penetrated into their mountain fastnesses; and the idea of attempting such a proceeding was looked upon as an act of madness. It was proved to the whole country how vulnerable they are, and that their most difficult strongholds can be entered and destroyed without difficulty. The death of the late General Jacob added much to the difficulties of the undertaking. For fifteen years he had ruled these people; his name only was known, feared, and respected, such as no other ever has been, or ever will be.

On the 14th June 1860 Major Green continues his narrative for 1859-60. Towards the latter end of May, His Highness marched for the mountains, the heat in the Province of Cutchee having become extreme, daily averaging 120° in the shade. In the beginning of June His Highness arrived at the town of Mustung, the capital of the Province of Sarawan. The march up the Bolan was unattended with any event worth relating; in fact, it is a mistake to imagine that this so-called Pass offers any difficulties either for traffic or the march of troops to or from India. The Kakurs who inhabit the mountains bordering the upper portion are a miserable race of petty thieves, utterly contemptible and by no means numerous; the lower part was formerly molested by the Murrees, but since His Highness' march through their country, and the subsequent arrangements which have been made, they have ceased to molest it. It bears no comparison with the Kyber Pass, which is most difficult, consisting of rugged and narrow defiles inhabited by the most desperate robbers in existence, strong of frame, bold, and numerous.

Having subdued the Murrees Major Green urged on the Khan the necessity of bringing his Provinces situated on his western frontier in Mekran again under his control. Otherwise Persia would seize them and thus take up a position so near the British Frontier, that at some future period they might cause serious annoyance, besides being able to interrupt the cañilla road running between Afghanistan and Kurrachee. Moreover this part of Asia never having been visited by any European, Major Green wished to judge, not only of its resources, but of the possibility of a hostile advance from that side towards Beloochistan and the British Frontier. The Khan acquiesced and Major Green left him at Mustung, and marched to the Valley of Shawl, crossing the Daslet-i-be-doulut, and halting at Quetta, the principal town of the valley. This valley is remarkable for its strategical position with regard to India, it being so situated that it commands the high roads leading from Central Asia in this direction to India. Of these roads there are two, one direct *viâ* the Bolan Pass to the Province of Cutch Gundava and Shikarpoor, and the other *viâ* the table-land of Beloochistan through Khelat and Khozdar to Kurrachee. Its altitude, 5,800 feet above the sea, renders its climate also most agreeable; the valley is well watered and cultivated. During his absence from Mustung, an Afghan Vaqucel had arrived from Candahar, and had used every effort in his power to dissuade the Khan from undertaking the expedition, the Afghans being most averse to seeing a strong and united Government formed under British influence above the Bolan Pass, and wishing the Belooch State to remain

the same feeble, disunited country that it had been for ages, and a prey to the first hostile comer.

On 5th November Major Green left Khelat with the object of collecting a force at Khozdar the capital of Jalawan. The Shagassée Wullee Mahomed, who had been despatched to the Province of Cutchee for the purpose of assisting in collecting the Sarawan tribes, arrived with all the force that he had been able to collect, about 1,000 horse and 2,000 foot, in the middle of January. The Khan with about 1,000 horse left Khozdar for Punjgoor on the 23rd January 1860. Major Green says—"Our first march was to Nal, the head-quarters of the Bezunjoo tribe; from thence we occupied two days in crossing the plain of Gressia, a strip of country scantily supplied with water and totally dependent on rain for cultivation; this plain or valley is inhabited by the tribes of Saka and Sajadie. Of the origin, or from where these tribes originally came, I have been able to obtain no clue; the only tradition they themselves have is, that their ancestors were kings in some distant country. I am myself inclined to believe that they are the descendants of the Scythians or Saka tribes, who either accompanied Alexander and settled in Mekran, or of those Scythians who, about the first century of the Christain era, dispossessed the Greeks of the countries bordering on the Indus, and that in all probability the name of Gressia is a corruption of that of Gedrosia, the ancient name for Mekran. During our march we also passed several of those curious mounds so frequently met with in Sind and the Punjab, as also in parts of Central Asia." Crossing a range of mountains they descended into the valley of Muska and halted at Gujgar on 7th March, as they heard from Punjgoor that the whole of the Chiefs of that valley, as well as those of Kedge, had arrived in His Highness' camp and tendered their submission to him.

MEKRAN.

The province is considered to commence at Nal and to extend westward to Bunpoor. It appears to consist of a succession of parallel mountain ranges, the strike of which is north-east and south-west, the end of each losing itself to the north in the desert of Seistan, and to the south on the sea-shore. The intervening valleys are sometimes watered by rivers, while others are totally dependent on rain for cultivation. The Valley of Gressia is entirely dependent on rain; the next, that of Muska, has a river running down the centre; while the next, that of Colwa, about sixty miles in length, is again dependent on rain. The richest of these valleys are those of

Punjgoor and Kedge, both well watered and cultivating wheat and barley ; that of Punjgoor is remarkable for its extraordinary number of date trees, the fruit of which is exchanged for grain from Sharawak and Pesheen : these dates are probably the finest in the world, and are preserved in various ways. All these valleys are studded with small forts, and whenever the Khan's servants have been sent to collect the revenue, the inhabitants have been in the habit of shutting themselves up in them, defying all comers : for this reason Major Green advised His Highness to destroy them all. The sea-port of Mekran is Gwadur, which at present is held by the Imaum of Muscat. There appears to be little export trade, which consists principally of wool and dates ; the imports are chiefly English piece goods and grain ; the former finds its way to Bunpoor, Kurnan, Kedge, and the adjacent valleys.

Tribes.—The inhabitants of Mekran are Belooch and Brahooe tribes. The former about the twelfth century appear to have migrated from Syria under a Chief named Chakur, to have crossed the Euphrates near Bagdad, and then wandered on until they arrived in Mekran. Many settled there. The others, still under the same leader, crossed the table-land of Beloochistan, which probably they found from its climate and barrenness uncongenial to their tastes and habits, and again halted in the plains of Cutchee. Here again many settled. The remainder, still under the same leader, proceeded towards Hindoostan, and appear to have found a final resting place near Delhi, called by the Belooch of the present day Sath Ghurree. The principal Brahooe (which expression is applied to all not Belooch) tribes are the Gitzkee, who claim a Rajpoot origin. Having quarrelled with their relations in Rajpootana, a large body about the fifteenth century under two leaders, named Futtch Singh and Maha Singh, migrated from Rajpootana. Crossing the Indus and mountains of Beloochistan, they arrived at Kedge ; here they found the Belooch, with whom they had some desperate encounters, but eventually settled themselves in the country. They appear to have soon after embraced the Mahomedan faith, and to have intermarried with the Belooch, but still those who have preserved a pure descent are easily distinguished by their fair complexion, delicately cut features, and erect carriage, as well as by their still retaining the Rajpoot fashion of dressing the hair, as descendants of the proud family from whom they claim their origin. There is also a tribe or sect called Dhie (both Strabo and Quintus Curtius mention a Seythian tribe called Dahas who surrendered to Alexander), who profess neither the Moslem nor Hindoo faith, but possess the most extraordinary rites and ceremonies, in

many respects resembling those of the Bacchanalian orgies of the Greeks. In support of the Belooch tradition, Major Green mentions that, when travelling on duty some few years ago in Syria, knowing the Belooch tradition of their ancestors having come from Syria, he made every enquiry, and found that at and around both Damascus and Aleppo there are located many tribes having the same name as those now to be found in Mekran and Cutch Gundava, and, further, when at Latakia, a tribe having the same ceremonies and customs as these Dhies was brought to his notice. It may, therefore, be supposed that this tribe either accompanied the Belooch from Syria, or that they may be the descendants of the inhabitants found by Alexander in his passage through, or left by him and still retaining some of the ancient Greek customs. There is yet another race to be found, the produce of the Belooch and Gitzkee, with the slaves brought in great numbers from Muscat and Zanzibar. These are the Mekranees, of whom we hear so frequently in the Nizam's dominions, as well as in the Provinces of Guzerat and Kattiawar, where they sell their services for a time. They are even here famous for the tenacity with which they defend their forts.

Antiquities, &c.—Major Green and the Khan's forces passed on their marches many ruins of old cities, canals, karezes, and contrivances for retaining water for cultivation which shew that at some former period the country enjoyed a much higher degree of civilization than it does at present. Near the fort of Givujuk there exist the ruins of a very extensive city, many miles in circumference, the dwelling-houses and enclosures of which must have been all built of stone. The climate of Mekran during the winter month is pleasant, but from April until September is deadly for European constitutions.

Persian Aggression.—The Persians have now a force consisting of twelve thousand men and twelve guns under a Sertip stationed at Bunpore; from this they have outposts at Jalk and Sibb, close to Punjgoor; to the southward they have possessed themselves of the Provinces of Gaih and Kusserkund, the latter a rich valley within forty miles of Kedge, and doubtless, unless the British Government turn their serious attention in this direction, they will gradually and silently creep on until at some future time, when circumstances may lead to a rupture with Persia, we shall hear of there being a Persian force within a few marches of Kurrachee and the head of the Gundava Pass.

Political Importance of Khelat.—On returning to Khelat

Major Green urged the Khan, who had thus received nearly the whole of the country of his fathers, to attend to its government. "The more" Major Green says.—"I have studied the geographical position of this country, the more convinced I feel of the political as well as commercial necessity for the retention of British influence over it. The Affghans and Persians are fully aware of its importance, and a British Officer being placed here on the plateau of Central Asia, has rendered Khelat the focus of Asiatic intrigue in this direction, and many efforts have been made to destroy my influence, and create, in the minds of the neighboring countries, suspicion of my intentions. With regard to the Affghan nation, I cannot but consider that their position and that of Beloochistan are identical with regard to British India, one country extending along its front, the other covering its left flank; and that British support to both countries would be of material assistance, should at any time a complication of European affairs lead a powerful enemy to make a hostile advance towards our Indian Empire."

Commerce.—Of the two roads from Central Asia to British India that *viâ* Khelat shews a saving of 12 days in time and Rs. 2 in cost compared with that in the Bolan. The wool, the sole produce of these mountains, amounts annually to an extent of from 8 to 10,000 maunds. The whole of the tribes of Beloochistan form a society of wandering shepherds. Their sole riches are the produce of their flocks, from the milk of which they produce cheeses, almost their only sustenance, and the wool they exchange for grain, cloth, powder, &c. During the winter months they migrate from the mountains of Beloochistan to the plains of Cutchee, and when the intense heat of summer sets in in the latter, they return to the mountains. Their flocks are shorn twice a year—in May, when they ascend the mountains, and in October, when they return to the plains. During the shearing seasons, the Khelat and Shikarpoor bunniahs go amongst the shepherds and exchange commodities for the wool, that of six sheep being valued at one rupee: this appears a fixed price. When, from want of rain, grain is scarce in the country, the bunniahs advance it on the next season's shearing, and even advance ready money to the Chief: thus most are entirely in the hands of the bunniahs. Major Green says, if some respectable native agents of British firms were sent to this country during the shearing season, with capital to purchase wool from the shepherds, and if they acted fairly towards them, giving good prices for good clean wool and rejecting the bad, both quality and quantity would soon increase. Carriage is abundant and cheap, and the purchaser might send the produce direct to the sea-port.

MILITARY SANITARIA.

Indian Records, Military Department, No. II.

1861.

A SECOND series of papers on the extent and nature of the Sanitary Establishments for European troops in the Bengal, Madras and Bombay Presidencies is published by the Military Department in September 1861. An abstract of No. 1 will be found at page 371, Vol. V. of the "Annals," and we omit from the present analysis a repetition of any information which has already been given.

Amherst.—At the mouth of the Salween or Moulmein river. It has the great advantage in its favor of a resident native population, from whom many articles of comfort, as vegetables, fish, and so on, could be procured.

Arracan Range.—Not sufficient elevation. It extends north and south from about 16° to $19^{\circ} 29'$ north latitude, within the British territory. Its extreme elevation within the above limit does not exceed 3,500 feet. The fall of rain at most parts of these hills, would not be less than 200 inches a year; and at some periods of the year the climate is very unhealthy, that is, persons going into them are liable to jungle fever. No part of these hills, therefore, is suited for a Sanitarium.

Bandora or Bassein soon will be connected with Bombay by rail—a very good place.

Banjhi.—A Table land above the Mote Jhurna Fall in the Sonthal Country. The ascent is very steep and water scarce.

Beharee Nath.—A small sandstone hill, near Raneegunge, Latitude $23^{\circ} 34'$, Longitude 87° . Elevation above the sea is 1,473, and above the plain 1,100 feet. It is slightly covered with bush jungle, bamboos, and grass; but from its very limited summit-area, it could never be available as a Sanitarium for any large body of men. A few men from Raneegunge might, with advantage, be sent to its summit for change of air. Water is only found at the base of the hill. The difference of temperature between the summit and base is 5° . From the peaked formation of the hill every wind that blows is felt on the summit.

Bunassir.—The elevation of this hill is about 5,200 feet. It contains an abundant supply of water, about 1,000 feet below the crest of the hill. The hill is composed of sandstone which makes excellent building material. Lime is abundant. The "pinus

longifolia" grows to a great size, and covers both the crest and the northern slopes of the hill. A mountain stream only divides it from Kussowlie; and a branch road could be easily constructed from the Umballah and Kalka roads at Pinjore. It is situated in Putteealla, and we should have to exchange other territory for it.

Burmore.—In the Kangra district on the northern face of the Chumba range, immediately above Dhurmsalla, is even more dry, and the temperature quite as elastic as Chini.

Caranjah.—A hill in the harbour of Bombay, which presents an elevation of 1,000 feet, and is to all appearances well calculated for a Sanitarium.

Chewa and Choonjur Ranges near Dugshaie.—Elevation 6,000 feet. Water abundant from the Thibet road tunnel. Stone and lime are abundant. The hill belongs to Putteeala.

Chikuldah.—The salubrity of these hills has long been beyond question. Chikuldah and Seonee do not, however, possess sufficient advantage in point of climate over Kamptee, to encourage any idea of forming either of them into a Sanitarium.

Chini in Kunawur.—Doctor A. Grant, Surgeon to His Excellency the Marquis of Dalhousie, Governor General, who resided here during the hot weather and rains of 1850 A. D. has described its climate and advantages. It is 1,500 or 2,000 feet above the bed of the Sutlej on an open plateau, at an elevation of 9,096 feet above the level of the sea. The plateau is broad, accessible to breezes from every side, sprinkled with trees, and laid out in terraced cultivation, consisting for the most part of wheat, barley, buckwheat and other cereals. The surface is not irrigated. The climate allows of only one crop in the year, and the genial showers that fall, combined with the low temperature, are sufficient to mature the crops without artificial irrigation. The soil is light and porous, certainly not hard and clayey. The spot is 150 miles from Simla and 200 miles from the plains. It lies amongst lofty hills, the slopes gradually ascending to the limits of perpetual snow, and in front across the Sutlej are colossal mountains, precipitous, and clothed with everlasting snows. The presence of these fields of ice has a marked effect on the climate. The mean temperature during the hot weather and rains at Simla is 68°, and at Chini during the same months the average did not exceed 55°. Violent storms are unusual. The winds would be naturally up and down the river Sutlej which would be N. E. and S. W. The fall of rain may be computed at about 25 to 30 inches a year. The climate of Chini has proved highly beneficial in all cases of intestinal ailment. Cases of dysentery and severe bowel complaint have yielded to the dry elastic climate

of the place, which has proved as beneficial as a voyage to sea. Dr. Grant recommends Chini for all chronic and obstinate diseases, especially for patients of scrofulous habit. The only exceptions he makes, are for diseases of the heart or lungs, when perhaps the rarified atmosphere would be too stimulating and aggravate the disease. It is fair therefore to suppose that fever, dysentery, and such like diseases are not endemic; but that pulmonary complaints are more likely to prevail.

Dalhousie.—It is easy of access from Lahore, Umritsur, Ferozepore and Sealkote. The air is fine and dry, the scenery beautiful, the water abundant and of good quality. Barracks have not been erected at this place. It is rather distant from a large Military station, but can be made very readily accessible for the Troops at Lahore, Umritsur, Jullundur, and Sealkote. Dalhousie is not so densely wooded as Simla or Murree, but is open to the breezes from the snows or from the plains. Water is plentiful. It does not receive much rain and is composed of open ridges and surrounded on all sides by impassable and precipitous hills. It promises to make an excellent Sanitarium. The mass of the hills appears to be composed of sandstone alternating with slaty micaceous schists (imperfectly crystallized clay rocks), and the soil overlying the rocks is generally of a light porous nature.

The Damun-i-koh is about 100 miles long and 30 broad, bounded on the north by the Ganges, on the east by the plains of Zillah Moorshedabad, south by Beerbhoom, and west by Zillah Bhawalpur. The rail runs up its eastern side at no great distance from it, and close underneath its most northern range. The climate on the hill seemed very fine in the cold weather, but Mr. Yule, the Commissioner, cannot say what it would be in the hot winds and rains. Rice and oil-seeds grow luxuriantly at the top. Probably cotton and coffee would also do so, and a mixture of the black vegetable soil of the hollows, with the red clay at top, would afford magnificent European vegetables. Whether this hill would be healthy in the hot weather and close of the rains—the two unhealthy seasons of the Sonthal districts—is doubtful. Generally speaking, small pox is the most destructive disease amongst the hill people, and next to it cholera.

Darjeeling in the Himalayah mountain. The climate is superb. A good road from the railway at Rajmehal to the foot of the hills, a distance of 150 miles, would be the means of causing a rapid increase of European settlers in the hills, a corresponding spread of tea and coffee plantations, and the establishment of schools and other social institutions that necessarily follow in the train of civilization.

Dhardeo.—Between this point and Kass and Euteshwar

on the main Syadree range, Bombay, the most prominent feature of which is the hill station of Mahableshwar, there is situated the tract best adapted for a grand central hill Sanitarium, where Europeans can reside throughout the whole year, owing to its general altitude above the line of hot winds, nearness to the main range, and consequent freshness of its sea breezes, ample supply of water, capabilities in an agricultural point of view, and freedom from the incessant rain of Mahableshwar and the main range generally.

Dhumsalla is nearly 6,000 feet above the sea level; it is easy of access, being 136 miles from Lahore, 73 from Hosharpore, 97 from Jullundur; and there are barracks with the necessary out-offices, hospitals, and quarters for Officers. It is an excessively rainy place, and is much confined. Water is plentiful for household purposes not for irrigation. The soil is a red and grey clay, covered with a sandy soil in most places, and a black vegetable mould in others. Water therefore never lodges and hence the station is well timbered with oak and rhododendron trees, which afford shade from the sun in most places, and a pretty foliage. The upper part of the station is above the influence of the malaria, at the lower part in the Jail and Police lines, cases do at times occur. Small pox is endemic in the valley. From the excessive moisture of the atmosphere and sudden changes from heat, the climate cannot be good during the rainy season for men suffering from bowel or hepatic complaints, but in that respect all hill stations at that time of the year are bad. Rheumatic and pectoral complaints are not likely to be benefited by it either.

Domus near Surat will be close to the line of rail between Bombay and Ahmedabad. It is worth consideration whether the establishment of a Sanitarium at Domus could not be made the means of dispensing with the European detachment at Surat.

Dugshaie is one of the three depots in the Cis-Sutlej division of the Punjab—elevation 6,000 feet—water abundant from the Thibet road tunnel—only 40 or 50 miles from Umballa and connected by cart roads with Kussowlic and Subathoo.

Durkhale Hill is at the back of Gudwa hill in the Northern circle of the Lower Provinces. There is a spring of water but the view is limited.

Elephant Point in Pegu is situated at the mouth of the Rangoon river—chiefly resorted to from February to April inclusive—inferior to Amherst in the same district.

Euteshwar a hill 14 miles east of Mahableshwar. One great drawback would be the want of water, although the hill abounds

in springs of very good water. It is 3,900 feet above the sea nearly, though not quite, out of the influence of the hot winds. Flowers and vegetables grow to great perfection if properly supplied with water. The soil resembles that of the Mahableshwur hills. The fall of rain is about 48 inches, with frequent fogs in the month of May.

The Fortress of Rhotas in the District of Shahabad occupies the level summit of a lofty mass of sandstone, twenty-two miles in circumference, which is surrounded on all sides by precipices, some of which are upwards of 1,000 feet in vertical height. The general height of this mountain is 1,490 feet above the sea. View extensive and water abundant. Thermometer 4° lower than in the plains. Latitude $24^{\circ} 37'$, Longitude $83^{\circ} 50'$. The direction of the wind was generally west and south-west, which has been experienced to be most healthy in this part of the country. Fever of the intermittent type very prevalent on the hills. Cholera not very unfrequent during the hot weather, caused by the malaria from the swamps, and from stagnant water and much to putrefaction; and secondly, to the want of free ventilation by the jungles, not only of shrubs and thickets, but trees of larger dimensions. It is 24 miles from Dehree.

Gizree near Kurrachee is easily reached by the steamers on the Indus. Mr. Macintire believes that many cases which derive no benefit from the hills, do well at Gizree. Children, however, are said not to do well, and pulmonary disease, scurvy, ulcers, and syphilitic eruptions, he has seen return in no way improved. Cases of debility after fever with a tendency to bowel complaint, seem not to do well, so also do rheumatism (either ordinary or syphilitic,) head affections, incipient spinal disease, and struma.

Holta is in the Kangra district near Dalhousie and Dhurmsalla. There are no barracks and though undoubtedly a healthy place, it cannot be regarded as suitable for the location of Troops, inasmuch as there is no accumulation of residents, nor is there any Civil or Military post in the neighbourhood. A dozen equally healthy places might be found in the Kangra and Palum valleys.

Kangra.—There are three favorable spots for Sanitaria in the Kangra district, the first at Dalhousie, the second at Dhurmsalla, and the third at Holta. The soil is composed principally of tertiary sandstone and of rotten granite, the component parts of which are probably quartz, felspar, and mica. The prevailing complaints of the district are fever and bowel complaint—goitre too is not uncommon.

Kass in the Bombay Presidency is higher, and better watered

than Euteshwar, being at the source of the Oormooree river, further west also and close to the main range.

Kerowlie Hill in the Beedee district is about 600 feet above the cantonment of Belgaum, but from the heavy monsoon and great prevalence of fogs, could only be habitable for about five months in the year. There is some risk of fever also from the jungles.

Khurruckpore Hills a few miles south-east of Monghyr, are of no great height, and are very unhealthy.

Khurram Hill is a fine high plateau overlooking a magnificent extent of country, with a good spring of water called the Baluk Nuddy, about half mile east of the village of Garum or Karumby. This spring gives at least 100 gallons per minute, and runs through many fine natural reservoirs, and is beautifully clear and sweet to the taste. No cart road.

Kumawun near Simla deserves further enquiry and experiment. Surgeon Grant speaks in high terms of it.

Kuror 18 miles east of Rawul Pindee—distant 20 miles from Murree—4,200 feet above the sea level—was formerly occupied as a cantonment by the Sikhs. An excellent Sanitarium for those cases for which the altitude of Murree is considered too great.

Kussowlie one of the three depots in the Cis-Sutlej division. Barracks would accommodate an entire Regiment but are incomplete. The character of the soil is much the same as at Dhurmsalla and Dalhousie. Above 40 or 50 miles from Umballa, and about nine by mule track from Kalka at the foot of the hills.

Lanjee Hills about 90 miles N. E. of Kamptee.

Lugoo Hill, W. S. W. of Parasnath and 8 miles N. of Damoodah river, surveyed by Captain Thompson. Water plentiful and good. Elevation 3,472 feet above the sea which is considerable for Lower Bengal. Latitude 23° 46' 55.6" N. and Longitude 85° 43' 44.1" E. The range extends 6 miles in length by 2½ miles in breadth. The approach is through dense jungle, about a day's march from the old Calcutta road.

Mahooa Ghurree Hill about 1,660 feet above the level of the sea. Pakooria is recommended as a residence for troops where there is a large level space of probably 25 or 30 beegahs clear of jungle. Its advantages are that it is open on three sides, commanding an extensive view, and having a very free circulation of air in almost every direction, that it has three springs, and that the climate is much cooler than that in the plains. Wood, stone, lime, bamboos, water, level ground for building and for gardens, and for many miles of road, all exist. The soil is rich,

much is cleared, and clearing is not expensive. The view extends to Parusnath on the west, the Ganges on the east, the Monghyr hills on the north, and the plains of Beerbhoom on the south, with all Sontalea between.

Maira or Maruk Hill a fine flat-topped hill, thirteen miles south of Monghyr, at an elevation of 1,500 feet above the sea. The view from the summit is exceedingly cheerful, embracing about thirty miles of the Ganges, the station, fort, and city of Monghyr; and at certain periods of the year a grand view of nearly 200 miles of the snowy range of the Himalayahs. The level summit is covered with light jungle, bamboos, and grass; water is only procurable at the foot of the hill. The slopes of the hill are covered with a forest of moderate sized timber trees. The geological structure of the hill is slate, capped with laterite.

Mammalo Pass not a place suited for the establishment of a Sanitarium; it is a narrow ridge with a steep descent on either side, and it is not sufficiently elevated for a latitude of 19°.

Moondhi or Mooli Hills.—Water excellent. The westerly winds in February and March are unhealthy. They are about 1,400 feet above sea level.

Mount Aboo's importance as a Sanitarium requires urgently that a proper and spacious building should be substituted for the present useless one, and afford a sanatory asylum for the numerous sick European Soldiers of the extensive northern division. Its utility to the Troops stationed in the fever-producing plains of Guzerat, would be incalculable.

Muhtoor in Nagpore is the centre of no less than 14 different stations, none of them at a greater distance than 120 miles, and all readily accessible. The surrounding country is a Table Land undulating and unencumbered with forest, though having numerous small eminences partially wooded, much of the soil is tilled, and a very large portion of it is covered with long grass intersected by small rivulets. There is abundance of ground near Muhtoor, ranging from 3,300 to nearly 3,500 feet above the sea, available for building sites for private individuals who may wish to locate their families near the proposed Sanitarium during each hot season, or to recruit their own health without undertaking distant and expensive voyages to sea, (Calcutta being 872 miles from Nagpore viâ Benares, Madras 704; and Bombay 514 miles) or to the still more distant Sanitaria at Darjeeling, Landour, Mount Aboo, and Ootacamund, or elsewhere in the Neelgiree hills.

Murree is situated on the summit of one of the many mountain ridges, which, emanating from the Cashmere portion of the Himalayan range, terminates on the plain between the rivers Indus and Jhelum, and which are known as the Huzara hills. It

is about 8,000 feet above the sea and extends for three miles at a distance of 18 miles from the river Jhelum. Soil grey calcareous sandstone rock, which is believed to be non-fossiliferous. The station is approached from Rawul Pindee, the nearest Military station, by an excellent road 38 miles long. A Military road to Abbottabad (Huzara) is in course of construction. The air, except on occasions of stormy weather when a keen east wind prevails, is clear, bracing, and health inspiring, and is calculated to improve such constitutions as are free from organic disease, but are suffering from general debility and want of tone of the nervous system, produced by a more or less prolonged residence in the relaxing climate of the plains. Spring sets in early in March with frequent storms of sleet, hail, and rain, followed by a period of fine sunny weather, during which crocuses, violets, and other spring flowers come into bloom. During April the air is mild and balmy and occasional showers fall. The summer and rainy season extends from the commencement of June to the middle of September. June is the hottest month of the year and generally dry. Water is good but not plentiful. The winds from April to September follow the line of the hills north-east and south-east, north-west and south-west. In October and November, and probably through the winter, winds are more northerly.

Pakoria Village in Bhagulpore situated on some Table Land on top of the hill, where there is a large level space of probably 25 or 30 beegahs clear of jungle, is open on three sides, commanding an extensive view, and having a very free circulation of air in almost every direction. It is about 35 or 40 miles from the Dhetara station on the East Indian Railway. By making a road between Pakooria and Slingee (about a mile), the hill would be at once in communication with the railway, as a road already exists between Dhetara and Slingee. Thus one forced march would bring the Troops within reach of any part of India to which the railway may extend.

Lauchgunny 14 miles east of Mahableshwur. The average fall of rain is only about 50 inches; the climate cool, clear, and bracing; abundance of water and supplies of all kinds; and ample room for exercise and drill. Altitude 4,000 feet. To make full use of such a Sanitarium it would be desirable not merely to collect invalids from various Corps there, but to occupy it by integral portions of the Deccan Force.

Poorundhur has been found, after a fair trial, to be very suitable to Europeans, and sufficient for the sanatory wants of this division. The Sanitarium has been fully organized and is in active operation, and nothing further appears to be required for the Deccan Troops.

Powanghur about 34 miles from Baroda, has been mentioned as a good hill Sanitarium, difficult and expensive of access; it might be tried, however, as a temporary measure, pending the opening of the rail between Surat and Bombay.

Puchmurry Hills in the Saugor and Nerbudda Territories, 4,000 feet elevation above the level of the sea. The central portion of the hills is a level plateau with clumps of trees and single trees, very prettily interspersed through it. The village of Puchmurry is situated about 4 miles from the southern edge of the range. The whole range is formed of sandstone of every degree of hardness, which would be an abundant and cheap building material. Thermometer in the shade about 80° during the day.

Pulo Penang or the "Arcea Palm Island," is situated towards the western end of the Straits of Malacca, and separated from the main land of the Malayan peninsula by a channel about 2½ miles broad, and lies between 5° 15' and 5° 29' north latitude, and 100° 21' east longitude; is about 15½ miles long by 7 to 8 broad, and is computed to contain about 160 square miles. The hills are easy of access either in the saddle, chair, or doolie, or even on foot; the latter, however, could not, as a general rule, be undertaken by Europeans, as the change of climate is so sudden from the oppressed atmosphere of the valley to the rarified elastic air of the hill, that the respiratory organs and action of the heart become so accelerated, and the muscular exertion is so great, that disease of the lungs, heart, or large vessels, might be induced, by frequent repetition of such violent exercise. The scenery from the hills is magnificent and picturesque in the extreme, unsurpassed by any spot on earth. The hill on which it is proposed to build the Sanitarium is about 2,450 feet high, and if there is available space, offers an excellent site for a "Sanitarium." The hills are one mass of primitive rock, chiefly a greyish colored granite, traversed here and there by views of quartz rock. Penang has no river of any size at all, abundance of excellent water, however, pours down from the hills to the sea, sufficient for all purposes. Climate warm during the day, cool at nights, and in the morning and evening. The months of July, August, September and October, are those in which the greatest quantity of rain falls. During the months from November to February inclusive, diseases of the liver, stomach, and bowels, excepting acute dysentery, do well: the same remarks apply to rheumatic and syphilitic affections. The rainy months are not suited to these diseases, being too damp and cold. The climate of the higher hills, 2,500 feet, is spoken of as equal to that of Montpellier and Madeira, and that the mean

annual temperature of the hill of Penang is 5° Fahr. less than that of the former place. "Instances have occurred repeatedly of patients who were too weak to crawl from their beds" (in the hospital and houses down below) "being able to walk about and enjoy the delightful scenery a few days after their removal to the mountain."

Port of Raurie in the neighbourhood of Vingorla.—Some little improvement might be necessary, especially in draining a piece of swampy ground in its immediate neighbourhood. For the purposes of a coast Sanitarium, Dr. Rooke recommends that the Port of Raurie be tried immediately. Barracks and a hospital already exist; and Dr. Rooke represents that the experiment would be attended by trifling expense.

Raj Ghat near Rhotasgurih a healthy plain and unobjectionable in every point. One great difficulty to be met with, and can be overcome, is the want of good fresh and wholesome water.

Rajmehal Hills, Latitude 25° 14', Longitude 87° 48' to 87° 36'. One of the most convenient, extensive, accessible, and cheerful spots in Bengal. They rise to the height of 1,500 feet above the sea, or 1,300 feet above the Ganges, extend from east to west for ten miles, with a comparatively level surface, and with a width varying from half a mile to a few hundred yards. Climate neither bracing nor temperate but some degrees cooler than the plains. The summit of the hills is reached from the plains in half an hour. The railway runs along the whole length of the hills, and would be convenient for every purpose of transit and conveyance of stores. It is accessible at all seasons of the year, either by rail, or by the river steamers. The view from the summit of these hills is very extensive, cheerful, and interesting. All the lower tracts of jungle lying within and without the Rajmehal hills have a deadly climate from March to October, so has the Terai lying at the foot of the Himalayahs, and so have all the deep valleys in the Himalayahs, even to within eight miles of the perpetual snow. The hills are of a basaltic formation, capped by laterite, and from their peculiar formation, roads from the plains would be of easy construction; at some spots one incline, and in others, two or three zig-zags would reach the summit. The ascent is in some places very steep, and only fit for the small, peculiarly formed two and four wheeled hill carts, whose wheels are composed of solid masses of timber, mortised together.

Rawling about 5 miles from Cambay. It would be open at all times of the year both for Ahmedabad and Baroda, and the expense of constructing the necessary buildings at Rawling would be comparatively little.

Rhotas Table Land, Latitude 24° 37', Longitude 83° 50'. The

climate, as far as could be judged from several short residences on the summit, is healthy and exceedingly dry, the air from this cause being highly electrical. A large portion of the plain is open, or rather meadows, used by the neighbouring villagers as pasture for their cattle, the remaining portions are jungles of variable density. Natives of the plains who go up to the Table Land during those months, seldom escape the fever, and the inhabitants of the Table Land themselves are also subject thereto, though not to so great a degree as the low-landers. The periodic insalubrity of this whole Table Land would appear to originate in the conformation of the surface, along with the vegetable mould covering the subjacent rock. The sides of the Table Land almost everywhere are elevated and slope inward, forming a series of extensive shallow basins, towards which there is a protracted sub-drainage from the saturated, spongy, circumjacent mould; the water continuing to escape therefrom beneath the rocks gradually along the few natural channels of exit till the month of October, or at times till mid November, should the rains have been late. Cholera is very infrequent on Rhotas, chiefly because no thoroughfares lead over it from the plains. The account of part of the Loodianah Regiment having suffered there, from that disease, is erroneous. The extreme length of the Table Land is about six miles from west to east, and its breadth about five miles from north to south. The ridge is the watershed of the hill, and consequently the drainage is to the north and south. The summit is richly clothed with the foliage of large trees, such as the mango and mowa. The bael grows wild in profusion, and there are a few fan palms scattered about.

Solabut Khan near Ahmednuggur contains a fair, although small, Sanitarium, sufficiently elevated to be above the range of the unhealthy hot wind, which has been of great benefit to sick soldiers of Ahmednuggur.

Sapter Shing Hill (or Chutter Sing) 5 miles westward of Malligaum. It would be a very desirable one, because it is within reach of the large Military station of Mhow, which at present is too far from any Sanitarium. The climate of the hill is little inferior to that of Mahableshwur; and on its top there is a plateau of considerable extent, which would accommodate, with great ease, from 500 to 700 men.

Sar Goojah Highlands—named *Mynee Pat* and *Jumeera Pat*. Latitude North $23^{\circ} 40'$ to $22^{\circ} 50'$, Longitude East $84^{\circ} 10'$ to $83^{\circ} 40'$. "This country, (Sarguja,) is well worthy the attention of the geologist. Its coal, iron, gold, ochre, marble, lime, &c., are most valuable—the height of the inhabited parts above the sea from 1,500 to 3,600 feet—the climate cool, agreeable, and healthy—

the scenery beautiful—rivers in every direction—woods and hills, on which are extensive Table Lands at about 3,300 feet in height. For the sportsman few places in India can excel this. The Gour abounds in deer of all sorts, wild buffaloes, elephants, tigers, in fact all, but the rhinoceros, of the animals of India." The Table Land of the Mynee Pat extends for 50 miles east and west by 30 miles wide at an altitude of 3,300 to 3,700 feet. It is too cold for the people of the plains, about 1,200 or 1,400 feet below. Jumeera Pat is separated from Mynee Pat by a deep valley and is 100 miles west from Chota Nagpore, 100 miles south-west from Sherghotty in Behar, and 160 miles south-east from Mirzapore on the Ganges. During the rainy season the streams are impassable from the great quantity of water contained in them. This spot is 3,200 feet above the level of the sea and very extensive. The soil is three feet of black mould lying upon red gravel. At the depth of 40 feet dug in this gravel, rock was met with, but no water. Red earth is common. In the hot season, as soon as the sun sets, the air is cool and pleasant, and the nights always cool. The thermometer in the house does not range higher than 84 or 85°. A strong north-west and west wind prevails during the hot season. The rains set in at the end of May with thunder-storms from the north-west, after which the prevailing wind was from the south and south-west. It very seldom blows from the east. There is almost always a fine breeze blowing there; and in the cold and hot weather a very hot wind from the north-west and west.

Shillong in the Kossiah hills will be chiefly useful for troops serving on the north-eastern frontier and in Eastern Bengal, because the nearest accessible point from Calcutta by steam is Gowahatti, which occupies sixteen days with an unfavorable climate all the way.

Simla.—Supply of water scanty and of inferior quality. The soil appears to be composed of sandstone alternating with slaty micaceous schists (imperfectly crystallized clay rocks), and the soil overlying the rocks is generally of a light porous nature. It is densely wooded. The road to Kumawan should be improved.

Singaleelah Range.—The following are the names of these hills and their respective elevations :—

Independent Sikkim ...	{	Kumehinginga...	28,177 feet above the sea.
		Kubrah ...	24,000 "
		Gubroo ...	15,000 "
		Kunglanamo ...	13,000 "
		Sughoo ...	12,000 "

British Sikkim	...	{	Singaleelah	...	12,329	feet above the sea.
			Phulloot	...	12,343	"
			Sandhukphoo	...	11,963	"
			Tongloo	...	10,080	"

The spurs descending eastward from Singaleelah are of great extent, one being six miles in length, two of twelve miles, and many of four and two miles in length. Here there is room for a large population that would form a powerful bulwark between Nepal and Sikkim. There is every sort of climate from tropical heat to nearly arctic cold, with all the intermediate gradations. At the lower levels, cotton, tobacco, rice, and other tropical crops thrive, at a higher level would be grown, tea, coffee, English fruits and vegetables, so necessary to the health of Europeans; whilst the fine grass pasture of a still higher level would support flocks of sheep, cattle and goats. Whenever a clearance is made in Sikkim and English grass seed sown, there is produced a healthy and a bountiful pasture. Water and fuel are abundant so are large oak, fir, chestnut, olive and other timber trees. At any height above 4,000 feet elevation, the European constitution is safe from miasma: at any height above that, the European thrives and is long lived.

Hills East of the Sittang.—About the latitude of 19° north there is a mountain region which would probably afford a suitable Sanitarium at an elevation of about 5,000 feet.

Solun in the Cis-Sutlej division. Sites for Troops abundant—elevation between 5,000 and 6,000. Water, stone, lime, and some kinds of timber plentiful.

Subathoo in the Cis-Sutlej division, about 40 or 50 miles from Umballa, and connected with Kussowlie and Dugshaie by the direct mule track. It is the least healthy of the hill stations but 3 upper story barracks have lately been completed and occupied, affording excellent accommodation for 300 men. The soil appears to be composed of sandstone alternating with slaty micaceous schists and the soil overlying the rocks is generally of a light porous nature.

Salabat Khan's Fort.—6 miles from Nuggur, about 34 miles from Baroda, has been mentioned as a good hill Sanitarium.

Sattara an elevated fort used as a Sanitarium for sick Soldiers by the Medical Officers of the troops of that station,

with good results. Sir Hugh Rose strongly recommends the development and permanent establishment of this locality as a Sanitarium for the troops at Sattara, or for the soldiers falling sick on the line of march from Kolapoor and Poona through Sattara.

Teer Hill situated upon the high land near Deoghur, and to the south of Bhaugulpore ; and having an elevation of about 2,500 feet above the sea. Latitude $24^{\circ} 30'$, Longitude $86^{\circ} 54'$. It is situated partly in cultivation and partly in jungle : it is covered with heavy jungle from the base to the summit, giving shelter to numerous tigers, leopards, bears, stags (sambur) peafowl, jungle fowl, and other wild animals. Climate very agreeable and cool.

Taragurh within 14 miles of Nusseerabad and close to Ajmere. The ascent is very easy, but the space on the plateau is not large, but yet sufficient for 40 or 50 invalids. There is already an old building on the hill which at a small expense, might be made to accommodate 50 men. The height of the hill is 2,800 feet above the sea, and about 1,000 above the plain. Water is collected in tanks, and is good and wholesome when filtered, and, if these failed, might be easily brought from below.

Vingorla affords very eligible spots for a Sanitarium, if *Rairee* should prove a failure.

Worlee an appropriate situation on the coast of Northern Concan.

Yoma between the Irrawaddy and Sittang, a mountain range in Pegu.

EXTERNAL COMMERCE OF MADRAS,

1860-61.

THE Report consists of only tabular statements. The total external trade in 1860-61 amounted to Rs. 10,47,75,815 ; in the previous year it was Rs. 9,19,33,558. Of the whole Rs. 34,28,851 represents the trade on account of Government. The following table shews the details :—

Comparative Statement of External Commerce by Sea, during the Official year 1860-61.

	Private Trade.			On account of Government.			Grand Total.
	Merchandise.		Total.	Stores, &c.		Total.	
	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	
1859-60.							
Imports	2,60,02,317	1,73,88,060	4,33,90,377	39,04,716	51,624	39,56,340	4,73,46,717
Exports	3,57,77,112	40,97,547	4,28,74,659	5,688	4,50,000	4,55,688	4,33,30,347
Re-Exports	12,56,194	...	12,56,194	...	...	...	12,56,194
Total	6,60,35,923	2,14,85,607	8,75,21,530	39,10,404	5,01,624	44,12,028	9,19,33,558
1860-61.							
Imports	2,85,60,644	2,07,25,887	4,92,86,531	30,95,168	...	30,95,168	5,23,81,699
Exports	4,45,64,655	59,88,632	5,05,53,287	33,683	3,00,000	3,33,683	5,08,86,970
Re-Exports	15,07,146	...	15,07,146	...	...	...	15,07,146
Total	7,46,32,445	2,67,14,519	10,13,46,964	31,28,851	3,00,000	34,28,851	10,47,75,815
Increase	55,96,522	52,28,912	1,38,25,434	...	...	...	1,28,42,257
Decrease	...	...	...	7,81,553	2,01,624	9,83,177	...

The value of the trade with the *United Kingdom* was :—

	1860-61.	1859-60.
<i>Imports</i> Rs. 2,30,55,289		2,24,39,740
Shewing a net increase of Rupees 6,15,549.		
<i>Exports</i> Rs. 1,17,05,479		1,23,90,778
Shewing a decrease of Rupees 6,94,299.		
<i>Re-Exports</i> Rs. 1,95,188		1,34,390
shewing an increase of Rupees 60,978.		

Of *Imports* from the *United Kingdom* the following were the chief articles :—

	Value. Co.'s Rs.	Value. Co.'s Rs.
<i>Apparel</i> .—Boot and Shoes	14,415	17,964
Buttons	5,132	934
Gloves	9,063	6,968
Gold and Silver Lace and Thread	2,16,864	2,25,328
Haberdashery	36,147	53,351
Hats and Caps	21,712	31,973
Hosiery	30,960	29,167
Millinery	3,25,310	3,54,933
Wearing Apparel	1,61,255	1,26,538
Do. Military	1,37,599	51,648
<i>Books and Stationery</i> .—Books—British	1,18,116	1,11,549
Prints and Engravings	2,939	6,609
Stationery	1,74,630	1,25,142
<i>Cotton Goods</i> .—Twist and Yarn—British	29,81,673	33,11,503
Thread	30,383	20,215
Piece Goods—Dyed	1,98,435	3,17,670
Do. Printed	3,37,109	6,40,287
Do. Plain	16,21,247	18,35,547
<i>Drugs</i> .—Copperas or Sulphate of Iron	145	1,042
Camphor	4,413	3,807
Sulphate of Copper or Blue Stone	20,444	8,082
Other Sorts	12,114	14,825
<i>Glassware</i> .—Bottles	5,828	9,103
Other Sorts	88,673	88,711
Grocery	5,036	6,923
Machinery	96,512	47,511
Malt Liquors—Private	5,26,202	4,26,652
Do. On Government Account	8,559	4,57,800
<i>Manufactured Metals</i> .—Brassware	5,486	2,296
Copperware	7,618	104
Cutlery	11,777	16,846
Hardware	64,645	97,142
Ironware	53,895	60,081
Platedware	56,079	45,953
Silverware	11,157	2,860
Silver Plate	4,450	10,468
Tinware	2,460	2,645
Types—Printing	20,875	20,162
Other Sorts	10,667	18,944
Medicines	23,074	22,574

			Value. Co.'s Rs.	Value. Co.'s Rs.
<i>Copper</i> —Bolt and Ingot	...	...	84,264	53,471
Rod	...	...	5,783	139
Sheet	...	...	72,540	85,505
Sheathing	...	...	7,298	20,008
<i>Iron</i> —Bar and Bolt	...	...	3,21,606	6,07,671
Hoop	...	...	29,163	22,682
Nails	...	...	11,942	9,748
Rails	...	...	39,720	...
Rod	...	...	23,478	2,669
Sheet	...	...	33,300	39,020
Swedish	...	...	4,206	3,069
Wire	...	...	8,609	5,095
Steel	...	...	54,958	23,591
Spelter	...	...	1,27,577	16,295
Tin Plates	...	...	38,911	6,383
Lead—Pig	...	...	19,778	10,525
Do. Sheet	...	...	5,158	381
Brass Sheet	...	...	5,782	3,057
Do. Wire	...	...	8,288	3,114
Yellow Metal	...	...	14,414	53,270
Do. Sheathing	...	...	41,000	33,698
Quicksilver	...	...	7,693	16,441
Other Sorts	...	...	1,883	10,037
<i>Military Stores</i> —On Government Account	...	...	32,08,570	20,15,211
On Private Account	...	...	14,973	...
<i>Naval Stores</i> —Anchors	...	...	1,873	300
Canvas	...	...	56,370	56,066
Chain Cable	...	...	8,455	...
Cordage	...	...	10,782	8,314
Grease or Tallow	...	...	...	7,018
Pitch Tar and Dammer	...	...	3,880	5,938
Twine	...	...	4,026	1,709
Other Sorts	...	...	7,581	3,348
Photographic Apparatus	...	...	13,810	10,503
Do. Chemicals	...	...	1,690	1,395
Railway Materials	...	...	21,61,136	26,55,346
Saddlery	...	...	32,145	63,954
Seeds of Sorts	...	...	2,685	1,645
Silk—Raw	...	...	12	...
<i>Silk Piece Goods</i> —Silk Piece Goods—British	...	...	30,901	5,011
Do. Foreign	...	...	366	215
Velvet—British	...	...	4,358	2,078
<i>Spirits</i> —Brandy	...	...	60,183	81,234
Gin	...	...	20,950	26,314
Rum	...	...	967	3,139
Whiskey	...	...	5,764	6,346
Other Sorts	...	...	558	708
Tea	...	...	1,146	1,291
Timber of Sorts	...	...	...	20,869
<i>Tobacco</i> —Manufactured	...	...	2,325	4,015
Unmanufactured	...	...	1,466	...
Toys	...	...	21,935	19,610
<i>Wines</i> —Cape	...	...	3,115	1,761

		Value. Co's Rs.	Value. Co's Rs.
Wines—Champagne	...	59,077	30,417
Claret—English	...	23,392	19,520
Do. French	...	10,105	1,047
Ginger	...	15,027	14,794
Hock	...	6,265	2,661
Lisbon	...	1,054	3,660
Madeira	...	35,357	24,417
Marscella	...	835	1,017
Moselle	...	12,361	10,248
Port	...	92,209	84,229
Sherry	...	2,33,315	1,87,861
Other Sorts	...	19,360	29,752
Treasure.—Gold	...	14,45,806	26,37,459
Silver	...	51,43,415	40,11,503

The following were the *Exports* to the United Kingdom :—

		Value. Co's Rs.	Value. Co's Rs.
Apparel.—Apparel—Wearing	...	2,097	1,039
Millinery	...	1,659	2,414
Books	...	4,004	2,109
Cabinet Ware	...	8,718	2,197
Coffee	...	3,87,927	9,01,614
Cotton Wool	...	23,63,196	18,26,615
Cotton Goods—Piece Goods—Dyed	...	2,71,645	3,91,761
Do. Printed	...	77	12
Do. Plain	...	142	1,071
Drugs—Myrabolanæ	...	12,208	17,616
Senna	...	31,123	48,263
Dyes—Indigo	...	38,70,750	22,84,068
Turmeric	...	24,413	5,212
Gram—Rice	...	4,65,894	3,75,740
Hides—Tanned	...	9,06,753	11,00,810
Untanned	...	99,171	81,507
Horns—Buffalo	...	57,043	11,723
Deer	...	57,043	19,733
Ivory and Elephant's Teeth	...	817	575
Ivory and Horn Ware	...	5,010	4,206
Jewellery of Sorts	...	7,011	5,073
Metal—Iron Pig	...	77,516	29,102
Molasses or Jagree	...	2,78,503	1,11,692
Do. Palmirah	...	1,727	47,143
Naval Stores.—Coir and Coir Rope	...	96,002	2,24,342
Hemp	...	11,090	...
Oil.—Cocanut	...	2,21,670	10,38,193
Fish	...	1,22,356	65,563
Gingely	...	21,435	...
Manilla	...	51,485	38,618
Other Sorts	...	828	658
Oilman's Stores	...	5,427	11,308
Pictures and Portraits	...	1,953	1,850

		Value. Co.'s Rs.	Value. Co.'s Rs.
<i>Precious Stones.</i> —Diamonds ...	...	10,950	11,901
Garnets ...	...	40	...
Rubies ...	...	3,015	2,300
Other Sorts ...	...	6,100	1,275
<i>Provisions.</i> —Fresh ...	...	8,692	5,689
Other Sorts ...	...	5,098	3,298
Saltpetre ..	...	14,190	30,273
<i>Seeds.</i> —Gingely ...	...	1,96,954	1,52,048
Linseed ...	...	17,311	7,406
Manilla ...	...	2,018	30,905
Mustard ..	...	19,540	17,982
Other Sorts ...	...	66	33
Shawls—Cashmere ..	...	5,263	2,996
<i>Spices.</i> —Cardamoms ...	...	34,674	20,962
Ginger ...	...	35,909	37,089
Pepper ...	...	1,445	31,055
Spirits—Rum ...	...	53,613	6,473
Sugar ...	...	24,39,141	25,34,086
Tallow ...	...	1,652	...
Tobacco—Manufactured ...	...	1,937	202
Toys ..	...	2,473	2,986
Wax and Wax Candles ...	...	38,841	15,150
Wine—Sherry ...	...	1,015	...
Wood—Red ..	...	47,864	68,451
Woollens—Carpets ...	...	4,465	5,905
Sundries ...	...	34,807	27,622
Total Merchandize		1,23,99,723	1,17,03,964
• Treasure—Gold ...		55	1,515
Total Merchandize and Treasure		1,23,99,778	1,17,05,479

The rest of the Trade was with the following places :—

<i>Non-Indian Ports.</i>	Imports.	Exports.	Re-Exports.
Aden	14	27,690	34
Australia	880	.....	...
America	1,42,077	187	220
Arabian Gulf	1,77,875	8,70,819	1,192
Bourbon	46,541	9,03,114	1,980
Cape of Good Hope	21,778	2,985	170
Ceylon	64,33,282	79,71,459	1,62,655
China	3,21,833	8,22,910	27,433
France	4,17,650	31,68,211	33,251
Hamburgh	557	21,368	...
Laccadives	83,519	12,956	2,264
Maldives	3,651	2,121	16
Mediterranean Sea ... ..	.....	70	.....
Mauritius	2,06,705	14,30,656	36,411
N. S. Wales	746	46	.....
Nicobars	101	76	.....
Penang, Singapore and Malacca	10,60,270	3,68,391	46,127
Persian Gulf	76,306	3,67,412	.....
Port Natal ... ..	.....	12,502	.....
Sumatra	17,232	9,173	.....
Turkey	66,247	4,26,014	.....
West Indies	2,029	73,280	.....
<i>Indian Ports.</i>			
Akyab ... ..	.....	5	1,418
Arracan	43,693	9,074	.....
Balasore	34,794	9,000	.....
Bassein	24,640	.....	.....
Bombay	1,32,68,788	1,41,57,482	62,124
Calcutta	43,48,763	57,45,875	2,80,404
Chittagong	3,65,164	2,58,107	2,122
Concan	4,01,835	4,62,285	3,174
Cutch	26,772	3,28,118	299
Goa	54,829	70,138	610
Guzerat	184	9,010	.....
Indian French Ports	8,61,339	7,96,555	3,78,419
Moulmein	4,90,608	2,92,921	14,287
Rangoon	1,03,284	2,12,509	93,438
Scinde	1,07,077	1,58,419	140
Travancore	1,15,338	1,75,093	1,63,770

The following shews the tonnage of the Port of Madras :—

ARRIVALS.	Total Foreign Ports.		Total Indian or Home Ports.		Total Ships and Tonnage Arrived.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
SQUARE RIGGED.						
Steamers Under British Colors	27	29,587	113	67,157	140	96,738
Ships Under British Colors	1,231	2,21,259	179	52,107	1,410	2,73,366
American do.	9	7,153	2	1,570	11	8,723
Arab do.	9	3,575	6	2,986	15	6,561
Australia do.	1	763			1	763
Dutch do.	2	861			2	861
French do.	49	19,044	111	42,638	160	61,732
Hambourgh do.	3	1,742	1	769	4	2,511
Portuguese do.	5	1,253	4	1,209	9	2,462
Sardinian do.	1	419			1	419
Swedish do.	2	919			2	919
Total Square Rigged	1,339	2,86,575	416	1,68,480	1,755	4,55,055
NATIVE CRAFT.						
Under British Colors	262	14,356	4,336	1,76,144	4,598	1,90,500
Arab do.	51	3,813	156	19,135	207	22,948
Cutch do.	4	511	158	14,001	162	14,512
French do.			3	161	3	161
Portuguese do.			262	4,641	262	4,641
Native do.	455	17,358	175	13,568	630	30,926
Total Native Craft	772	36,038	5,090	2,27,650	5,862	2,63,638
Total Square Rigged and Native Craft	2,111	3,22,613	5,506	3,96,130	7,617	7,18,743

DEPARTURES.	Total Foreign Ports.		Total Indian or Home Ports.		Total Ships and Tonnage Departed.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
SQUARE RIGGED.						
Steamers Under British Colors	7	9,035	110	62,328	117	71,363
Ships Under British do.	1,518	2,61,229	236	89,183	1,754	3,50,412
American do.	7	6,359	8	6,065	15	12,424
Arab do.	10	4,405	5	2,772	15	7,177
Danish do.	1	302			1	302
Dutch do.	4	1,536	1	209	5	1,745
French do.	194	81,016	14	5,312	208	86,328
Hamburgh do.	3	1,905			3	1,905
Portuguese do.			5	1,159	5	1,159
Russian do.	1	392			1	392
Swedish do.	2	705	1	804	3	1,509
Total Square Rigged	1,747	3,67,021	350	1,67,862	2,127	5,34,883
NATIVE CRAFT.						
Under British Colors	229	14,552	4,335	1,72,841	4,564	1,87,393
Arab do.	210	24,252	20	1,900	230	26,152
Cutch do.	36	3,466	215	17,944	251	21,410
French do.			3	18	3	18
Portuguese do.	4	495	259	5,506	263	6,001
Native do.	730	24,944	128	11,327	858	36,271
Total Native Craft	1,209	67,709	4,960	2,09,926	6,169	2,77,636
Total Square Rigged and Native Craft	2,956	4,34,730	5,340	3,77,788	8,296	3,12,521

MADRAS MEDICAL COLLEGE.

1860-61.

Madras Records, No. LXIX.

ON 24th August 1861, Mr. Arbuthnot, the Director of Public Instruction, submits the Annual Report of the Principal of the Medical College for 1860-61.

A Committee consisting of Drs. Sanderson, Porteous and Mudge conducted the annual examination. Both these reports are favorable. At the annual examination, eighteen students were passed for the grade of Assistant Apothecary, and twenty-five for that of Hospital Assistant. None of the students in the Senior Department, who are qualifying for a degree in medicine, had completed the prescribed course. In regard to the students who passed as Assistant Apothecaries, the Examining Committee were of opinion that, "in their practical examinations they acquitted themselves very creditably, proving, satisfactorily the good results of the system of instruction now employed." The Principal also speaks of a marked improvement in the Clinical classes. The students in the junior department, who qualified as Hospital Assistants, are said to have evinced, on the whole, a fair knowledge of the subjects in which they were examined. The conduct of the students, throughout the year, was very satisfactory. The Professorship of Medical Jurisprudence was in abeyance during the whole of the year, and was abolished shortly before its close. The abolition of this chair does not prevent the students of the College from presenting themselves before any of the examining boards in Great Britain and Ireland. A separate class of Pharmacy was established, in which the students are practically taught the mode of making up prescriptions, and compounding. Owing to recent charges effected in the constitution of the Subordinate Medical Department the College was divided into three departments: a senior department for the instruction of candidates for a degree in medicine, or for the appointment of Sub-Assistant Surgeon; a second department for candidates for the appointment of Assistant Apothecary, and a third, or junior department, in which candidates are prepared for the grade of Hospital Assistant. In all the departments candidates are admitted on the results of a competitive examination, and candidates for admission into the senior department are required to pass the matriculation examination of the Madras University. The Primary Medical School was transferred to the College at the beginning of the Session, and is now merged in the 3rd, or junior department. The number of students remaining at the end of the year was 139. The total expenses of the College amounted to Rs. 41,991-7-7 of which Rs. 17,371 was paid to students as stipends, and Rs. 15,600 as salaries of the Professors and Principal.

THE
ANNALS
OF
INDIAN ADMINISTRATION.

REPORTS ON THE SETTLEMENT OF THE LAND
REVENUE OF MADRAS.

(Fasli 1269) 1859-60.

THE Annual Report of the Madras Board of Revenue on the settlement and collection of the revenue of Madras, for 1859-60, is submitted by J. D. Sim, Esq., Secretary on 16th February 1861, reviewed by Government on 22nd April 1861, and does not reach Calcutta till May 1862. During the year, territorial alterations were made in some of the Collectorates. The three Districts of Rajahmundry, Masulipatam and Gunttoor, were formed into the two new Districts of the Godavery and Kistna; Madras was amalgamated with Chingleput, the united Districts being designated Madras; and Canara was divided into two Collectorates called North and South Canara.

The Season.—In the Districts of Ganjam, Vizagapatam, Nellore, Madras, Tinnevely, Coimbatore, and North and South Canara, the season was favorable; but in the other twelve Districts it was below the average; and in parts of the Ceded Districts there was actual drought. The freshes in the Kistna, Cauvery and Coleroon were unusually high and caused much damage. The highest fresh in the Kistna was 37 feet, at which height the river remained for several days. In the Provinces, cholera, fever and small pox were prevalent. In Malabar, cholera of a virulent type was fatal in 13,953 out of 16,343 cases reported. In North Canara fever has been very prevalent during the last two or three years.

The average fall of rain in each district, during the past two seasons, is shewn in the following table :—

Districts.				April to September 1859 inclusive.	October 1859 to March 1860 inclu- sive.	Total for the whole year.	Total for last Fashi 1263.
Ganjam ...	...	...	...	48.5	6.9	55.4	40.0
Vizagapatam	...	...	...	31.4	10.0	41.4	28.9
Godavery	...	...	...	26.4	6.7	33.1	29.1
Kistna ...	...	...	...	23.0	5.1	28.1	28.8
Nellore ...	...	...	...	19.2	33.4	52.6	38.2
Cuddapah	...	...	...	15.0	12.2	27.2	29.5
Bellary ...	...	...	...	11.8	2.5	14.3	28.0
Kurnool ...	...	...	...	19.7	1.9	21.6	23.0
Madras ...	...	...	...	24.6	27.4	52.0	51.1
North Arcot	...	...	...	13.8	13.5	27.3	34.5
South Arcot	...	...	...	25.7	16.8	42.5	52.3
Tanjore ...	...	...	...	36.6	29.4	66.0	56.4
Trichinopoly	...	...	...	27.5	11.5	39.0	46.2
Madura ...	...	...	...	18.5	14.8	33.3	41.0
Tinnevely	...	...	...	12.4	25.1	37.5	33.9
Coimbatore	...	...	...	19.5	7.5	27.0	25.2
Salem* ...	...	...	...	6.9	1.4	8.3	50.5
North Canara	...	...	}	107.6	17.6	125.2	135.5
South Canara	...	...			
Malabar ...	...	...	...	93.7	15.1	108.8	115.1

* This is clearly erroneous, but the Collector has not been able to correct the mistake.

Prices.—Prices continued very remunerative, although lower than in Fasli 1268, in which year they rose to rates unprecedentedly high. The subjoined abstract will show that though they fell from 10 to 16 per cent. in Fasli 1269, they were still (with one exception, Jawary,) considerably above the average prices of the previous ten years; they were also above the commutation rates :—

	Average of 10 years from Fasli 1259 to Fasli 1268.	Fasli 1268.	Fasli 1269.	Increase or decrease in Fasli 1269 on the average of 10 years.	Percentage of in- crease or decrease.	Decrease below Fasli 1268.	Percentage.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Paddy 1st sort per garce ..	104	158	141	+ 37	36	17	10
Do. 2nd do. ...	94	143	130	+ 36	38	13	9
Jawary do. ...	214	183	161	— 53	25	22	12
Bajera do. ...	117	173	152	+ 35	30	21	12
Raggi do. ..	113	167	150	+ 37	32	17	10
Horse gram do. ...	144	219	182	+ 38	26	37	16

There was a general fall in the price of the second sort of paddy, the staple food of the people, owing to increased production and less demand from foreign markets.

Ryots' Holdings.—The extent of land in occupation or comprised in the Ryots' holdings was 1,46,41,496 acres, assessed at 3,10,85,669 Rupees; which shows an increased net occupancy above the preceding year, of 4,73,641 acres, assessed at 6,15,108 Rupees; but in this acreage the Estates in North and South Canara and Malabar are not included; for, owing to peculiarities of land tenure in those Districts, the extent under occupancy is not known.

Items.	Land.	Assessment.
	Acres.	Rs.
Lands held by the Ryots at the commencement of the year	1,41,67,855	3,04,70,561
Deduct lands given up	6,09,911	11,86,884
Remainder	1,35,57,944	2,92,83,677
Add lands newly taken up	10,83,552	18,01,992
Total holdings	1,46,41,496	3,10,85,669
Waste remitted	2,52,282	6,39,959
Remainder	1,43,89,214	3,04,45,710

Of the above occupancy 2,52,282 acres were left uncultivated under circumstances entitling the holders to remission, and the assessment thereon, Rupees 6,39,959, was accordingly remitted.

Waste Land.—

				Waste Remission.	
				Extent.	Assessment.
				Acres.	Rs.
Fasli 1265	...	...	...	3,12,724	7,91,743
Fasli 1266	...	...	...	3,54,941	8,88,172
Fasli 1267	...	...	...	7,20,083	16,78,709
Fasli 1268	...	...	...	4,24,514	10,01,931
Fasli 1269	...	...	...	2,52,282	6,39,959

The item "Waste remitted" was considerably less than in previous years. This result is to be attributed to the more rigid enforcement of the rule which requires the Ryots to pay the full assessment on the whole extent of their holdings (except under certain peculiar circumstances), and which consequently led to the relinquishment of those lands which could not be advantageously cultivated. The actual cultivation of Fasli 1269, including land left waste under circumstances not entitling the owners to remission, is compared with that of the preceding year in the following abstract :—

Items.	Fasli 1268.			Fasli 1269.			Increase.			Decrease.		
	Extent.	Assessment.		Extent.	Assessment.		Extent.	Assessment.		Extent.	Assessment.	
		Acres.	Rs.		Acres.	Rs.		Acres.	Rs.		Acres.	Rs.
Unirrigated	...	1,06,49,294	1,33,16,110	1,13,04,510	1,30,23,296	...	6,55,216	6,07,186	...	...	...	...
Irrigated	...	26,29,300	1,70,63,079	27,02,142	1,48,11,557	...	72,842	...	...	...	...	22,51,622
Garden	...	3,60,836	16,45,925	3,82,562	17,10,857	...	21,726	64,932	...	...	...	...
Total	...	1,36,39,430	3,20,25,114	1,43,89,214	3,04,45,710	...	6,49,784	...	...	...	...	15,79,404
2nd crop assessment	8,15,925	...	7,95,707	...	...	49,079	...	...	...	20,218
Additional ditto	6,00,313	...	6,49,392	...	...	...	...	...	...	15,50,544
Total	3,34,41,353	...	3,18,90,809	...	...	...	...	...	...	...
N. and S. Canara and Malabar	39,53,344	...	39,55,827	...	...	2,483	...	...	...	...
Total	3,73,94,697	...	3,58,46,636	...	...	...	...	...	...	15,48,061
Deduct Remissions	45,45,275	...	38,39,295	...	...	...	...	...	...	7,05,980
Remainder	3,28,49,422	...	3,20,07,341	...	...	...	...	...	...	8,42,081
Add sundry items	24,11,527	...	25,38,657	...	...	1,27,130	...	...	...	...
Total	3,52,60,949	...	3,45,45,999	...	...	...	...	...	...	7,14,951

In the irrigated lands, notwithstanding the general increase of cultivation, there will be seen a large decrease of assessment, viz., 25,47,111 Rupees in four Districts; with the exception of Rupees 48,080 in Bellary and South Arcot, the whole of this appertains to Tanjore and Tinnevely. This decrease is the consequence partly of the abandonment of the Ulungu system, and the introduction of the Motafysul mode of settlement into most of the villages of Tanjore, whereby the whole estimated produce has been definitely fixed, and the rate of commutation on it once for all determined instead of varying as formerly with reference to fluctuating prices; and to the introduction into Tinnevely of a similar measure.

Remissions.—The particular attention of Collectors was drawn to the subject of remissions. They bestowed much care in giving only those that were necessary, and in refusing to sanction any that were not properly claimable. The total sum of remissions of every description allowed by the Collectors, amounting to Rs. 38,39,295, may be accepted as satisfactorily explained. The similar remissions granted in the two previous years amounted

In Fasli 1267 to	...	...	Rupees 54,43,968
„ 1268 to	...	...	45,45,276

Sugar, Cotton and Indigo.—The cultivation of the special products of Sugar Cane, Cotton and Indigo, is shown. There is an increase of about 3,000 acres in the Cane, and a decrease of about 45,000 in Cotton, and of 12,000 acres in Indigo cultivation.

			Fasli 1268	Fasli 1269.
			Acres.	Acres.
Sugar Cane	...	...	38,025	40,904
Cotton	...	...	10,41,848	9,96,658
Indigo	...	...	1,72,490	1,65,002

General Result of Land Revenue.—The results of the settlement of the Land revenue under its several tenures are shown in the subjoined abstract, in comparison with Fasli 1268 :—

	Fasli 1268.	Fasli 1269.	In-crease	Decrease
	Rs.	Rs.	Rs.	Rs.
Permanently settled Estates ..	49,77,504	50,63,416	85,912	.....
Jody of Shrotrium and Inam vil- lages	4,83,124	4,19,666	...	33,458
Rents for more than one year ...	2,19,951	2,18,285	...	1,666
Rents for one year ...	78,443	69,118	...	9,325
Ryotwar	3,52,60,950	3,46,49,802	...	6,11,147
"Annany" or division of produce	1,12,399	63,852	...	48,547
Total	4,11,32,371	4,05,11,140	85,912	7,04,143
Net decrease .. ..	...	...	...	6,18,231

The Board remark—"cultivation is steadily increasing, and when it is considered that the revenues of the Godavery and Tinnevely Districts were affected by the restoration of the Akwade, Ralunge, and Chockumpetty Estates to their respective Zemindars, and that large relief was afforded to the Mirasidars of Tanjore and Tinnevely, by allowing them to enjoy all the benefits arising from high prices, the result of the year is, in the Board's opinion, satisfactory. Compared with the preceding ten years there is a large increase, amounting on the average to 36½ lakhs. In this series of years the last Fasli (1268) exhibits the largest revenue; but on a fair comparison with even that year, the result of the present one is an increase of nearly six lakhs instead of a decrease to that amount."—

			Rs.
Fasli	1259	...	3,49,27,729
	1260 ..	...	3,59,14,226
	1261 ..	...	3,66,31,012
	1262 ..	...	3,70,39,729
	1263 ..	...	3,41,69,321
	1264 ..	...	3,57,01,998
	1265 ..	...	3,72,04,062
	1266 ...	...	3,85,13,019
	1267 ...	...	3,75,70,146
	1268 ..	...	4,11,32,371
Average .. ..	...	...	3,68,80,361
Fasli 1269 ..	...	...	4,05,14,140
Increase above the average of 10 years	...	...	36,33,779

Sundry Sources of Revenue—The settlement of the sundry sources of Revenue shows a net increase of Rupees 20,05,374.

	Fasli 1268.	Fasli 1269.	Increase.
Abkarry	28,01,541	29,49,711	1,48,170.
Muturpha	10,82,791	11,02,330	19,539.
Salt	58,96,654	65,42,673	6,46,018.
Sea Customs	14,53,445	25,30,410	10,76,965.
Frontier duties	1,96,665	2,56,941	60,276.
Stamps	8,05,247	8,59,653	54,406.
Total	1,22,36,343	1,42,41,717	20,05,374.

Of the increase in the *Abkarry*, the greatest portion, or Rupees 1,14,965, is in the Town of Madras. In this District, the *Abkarry* farm is under the direct management of the Officers of Government; "and the progressive increase apparent in the revenue during the last few years reflects credit on the local authorities entrusted with its management." The increase in the *Kistna* District arises from the transfer of the Military *Abkarry* farm of the Town of Masulipatam to the Collector, and the increase in Tanjore is occasioned by the higher offer received for the rent of the *Abkarry* farm of the late Rajah, which was resumed and incorporated with the general revenue of the District in Fasli 1268.

Salt Revenue.—The Salt transactions are embodied in the subjoined abstract in comparison with those of Fasli 1268 :—

Items.	Fasli 1268.	Fasli 1269.	Increase.	Decrease.
	Id. Mds.	Id. Mds.	Id. Mds.	Id. Mds.
Quantity in store at the beginning of the Fasli	85,66,702	71,09,837	...	14,56,867
Do. manufactured during the Fasli	61,41,003	87,03,586	25,62,383.	...
Total	1,47,07,705	1,58,13,421	11,05,716	...
<i>Sales.</i>				
Home consumption	26,21,013	26,97,264	76,251	...
Inland do.	31,30,481	30,83,947	...	46,534
Export by sea	8,98,680	9,65,727	67,047	...
Supply to the French Government	70,669	63,486	...	7,183
Total sales	67,20,843	68,10,424	89,581	...
Remainder	79,86,862	90,02,997	10,16,135	...
Wastage written off under Government sanction	8,77,027	6,68,284	...	2,08,743
In store at the close of the Fasli	71,09,837	83,34,713	12,24,876	...

The gross Salt revenue, including extra items and refunds of charges, amounted to Rupees 65,53,936; the charges of every description, amounting to Rupees 9,62,880, being deducted, leaves a net revenue of Rupees 55,91,056, which exceeds that of Fasli 1268 by Rupees 6,80,212. The increase is due partly to the enhanced sales, but chiefly to the monopoly price having been raised 2 annas per Indian maund. The increase in the *Sea Customs Revenue*, amounting to Rupees 10,76,965, is due to the provisions of Act VII. of 1859, which were in operation for a longer period in the Fasli under report than in the previous year.

Moturpha.—In Fasli 1269 the Tax on Trade realised Rs. 2,70,637, on Looms Rs. 3,76,145, on Professions Rs. 2,18,635, on Houses Rs. 1,80,043, on Cattle, Sheep and Goats Rs. 50,473, on Sundries Rs. 21,335, or a total of Rs. 11,17,288. Deducting 'Curnums' fees the net revenue was Rs. 11,02,330 against Rs. 10,82,790 the previous year.

Coercive process was employed for the realization of the revenue to a greater extent than in last year. Process was issued against 18,188 Ryots, and property to the amount of two lakhs was attached; but by far the greater part of the demand was paid up without the adoption of further measures; the amount of property actually sold being only 31,172 Rupees, more than one-half of which was in Tanjore.

Charges.—The charges amounted to 57,48,468 Rupees or 10·3 per cent. on the collections, including refunds of charges of the year. The amount is nearly the same as in the last year. The Collectors generally make favorable mention of the conduct and services of their subordinates. The objects which led to the formation of the grade of Deputy Collectors, were attained in a very satisfactory degree.

Opinions of Government.—In reviewing the Report Government declare the results, showing a total increase of Rupees 17,55,540, to be "very creditable to all concerned." They condemn the custom of retaining old arrears in the accounts and say—"It will probably be found on very slight inquiry that all the arrears of above five years' standing may be written off at once; those of more recent date will need closer investigation, but the whole may be completed in a short time if the work is vigorously taken in hand." In the Kistna district there are arrears extending back to 1818. The new Law for the recovery of arrears (Act XXXIX. of 1858) has much strengthened the hands of Collectors, and it is the desire of Government that the powers thus given should be fully used.

APPENDIX.—The Appendix consists of a series of valuable statistical tables the results of which we have given above, and of Settlement Reports of the various zillahs.

Comparative Statement showing the cultivation of Sugar-cane, Cotton and Indigo, for Fasli 1269.

Districts.	Sugar-cane.		Cotton.		Indigo.	
	Fasli 1268.	Fasli 1269.	Fasli 1268.	Fasli 1269.	Fasli 1268.	Fasli 1269.
1	2	3	4	5	6	7
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1 Ganjam ...	3,843	2,842	4,086	4,769	....	....
2 Vizagapatam ...	3,800	4,496	5,110	6,736	452	632
3 Godavery District ...	3,698	4,370	9,812	12,745	674	189
4 Kistna District ...	10	...	1,24,846	1,34,138	15,661	16,217
5 Nellore ...	24	13	11,975	13,204	20,553	27,968
6 Cuddapah ...	3,923	2,756	36,712	33,367	36,235	27,091
7 Bellary ...	6,603	8,286	2,42,424	2,85,501	2,751	3,213
8 Kurnool ...	905	711	1,65,393	1,52,325	25,535	23,773
9 Madras ...	104	128	...	4	5,716	4,697
10 North Arcot ...	5,059	6,348	54	55	23,392	21,017
11 South Arcot ...	1,734	1,878	18,176	33,198	37,555	36,548
12 Tanjore ...	461	311	1,756	1,036	866	832
13 Trichinopoly ...	1,543	1,520	5,373	5,796	462	270
14 Madurai ...	177	198	75,818	77,159	32	34
15 Tinnevely ...	240	254	1,94,890	1,84,325	396	553
16 Coimbatore ...	1,344	1,614	1,31,711	1,20,086	....	8
17 Salem ...	1,310	1,420	13,212	15,214	2,160	1,910
18 North Canara ...	3,236 {	3,196	...	....	....	....
19 South Canara ...		564	...	....	....	....
20 Malabar ...	....	....	....	....	....	....
Total ...	38,025	40,904	10,41,848	9,96,658	1,72,490	1,65,002
Government Lands	24,258	25,332	7,00,462	6,31,359	1,34,410	1,26,813
Inam Lands	4,658	4,959	2,24,177	2,44,129	23,472	23,139
Zemindary Lands	9,109	10,613	1,17,209	1,21,170	14,608	15,050

Statement showing the extent of cultivation and average assessment per acre, for Fasli 1269.

Districts.	Extent of cultivation.	Assessment as per survey.	Deduct permanent remission.	Remaining net Beriz.
	1	2	3	4
	Acres.	Rupees.	Rupees.	Rupees.
1 Ganjam ...	1,98,190	4,56,104	.....	4,56,104
2 Vizagapatam ...	26,268	1,66,441	.....	1,66,441
3 Godavery District ...	5,49,273	17,16,413	2,358	17,14,055
4 Kistna District ...	14,34,708	25,46,929	26,171	25,20,758
5 Nellore ...	4,90,654	12,34,263	.....	12,34,263
6 Cuddapah ...	10,48,570	20,04,754	5,20,872	14,83,882
7 Bellary ...	19,86,121	18,36,472	.....	18,36,472
8 Kurnool ...	10,49,402	13,79,834	1,32,598	12,47,236
9 Madras ...	3,00,792	10,88,657	808	10,87,849
10 North Arcot ...	5,59,081	16,27,868	.....	16,27,868
11 South Arcot ...	9,83,299	40,66,400	11,45,509	29,20,891
12 Tanjore ...	2,79,792	10,96,783	13,615	10,83,168
13 Trichinopoly ...	5,91,734	17,64,502	1,82,589	15,81,913
14 Madura ...	6,04,783	12,27,113	.....	12,27,113
15 Tinnevely ...	8,69,779	21,93,662	.....	21,93,662
16 Coimbatore ...	17,30,500	26,75,080	2,15,780	24,59,300
17 Salem ...	9,67,648	18,04,536	1,96,378	16,08,158
	1,36,70,594	2,88,85,811	24,36,678	2,64,49,133

The average assessment per acre is Rupees 1-3. It varies from As. 10-5 in Bellary to Rupees 3-15-9 in Vizagapatam.

THE THUGGEE AND DACOITY DEPARTMENT.

1859 and 1860.

India Records, No. XXXIV.

On 17th July 1861 Major C. Hervey, General Superintendent of the operations for the suppression of Thuggee and Dacoity,

submits to the Government of India tabular statements showing the number and class of professional criminals apprehended and disposed of by the Officers of this Department during the years 1859 and 1860, and the number of each class still at large against whom there is sufficient evidence to warrant their arrest.

Punjab Circle.—The cases of 95 prisoners were enquired into as follows.

Phansigar	...	...	...	...	52
Poisoners	...	...	...	...	17
Dacoits	...	...	...	...	24
Coiners	...	...	...	...	2

Two remained under investigation at the end of the year 1860. In the two years there were five cases of murder, of fifteen persons by *Thugs*. Of the 21 prisoners committed for trial, 2 were hanged, 6 transported for life, 9 imprisoned for a limited period and 4 released on security. The crime is not quite extinct in the Punjab. The number of unarrested registered thug criminals amounted, on the 1st January 1861, to five hundred and eleven. They comprise mostly Muzbee Sikhs, the great thug class of the Punjab. Several of them are probably dead, as many were old men when originally registered, but they must all be accounted for before we may rely on the crime being permanently extinguished. The above five hundred and eleven fugitives remain from a body of seven hundred and thirty-four persons who were at large practising their dreadful vocation when the operations of this Department were first directed to their suppression in 1852. No cases of professional *dacoity* in the Punjab were reported during the two years. The criminals arrested were implicated in cases of former years. Of those committed for trial, one was hanged, and three transported for life. There were twenty-two reported cases of *poisoning* in the Punjab, attended with the deaths of fifteen persons, in some of which the culprits were seized, of whom one was hanged.

Agra Circle.—There were 82 prisoners in the two years, of whom 14 were *Thugs*, 67 *Dacoits* and 1 a poisoner. Several of these had been liberated by the mutineers. Among the first were eight Megpunnah *thugs* (kidnappers who murdered the parents for the sake of their children, whom they sold,) of whom nine had escaped. Of reported cases of *poisoning* there were twenty-four, in which the number of deaths were eight out of a total of forty-two persons poisoned. In these cases but three persons were convicted, and they were sentenced to life transportation. In instances, however, in which death had not resulted, a few persons were arrested on suspicion and were released.

Within the Native States in this range, no cases were reported in 1859; but in 1860, six were brought to notice, in which twelve persons were poisoned, of whom three died. Five persons were arrested, one of whom was sentenced to fourteen years' imprisonment. Even in British Territory reports of the crime can generally only be depended upon when death has ensued. The freeness from it of these States may not, therefore, be concluded from the receipt from them of blank returns. The number of cases of *dacoity* of a professional nature, during the two years, in the portion of this Circle that forms British Territory, which includes the Meerut, Agra, and Allahabad Divisions, Banda and the Jhanssee Commission, amounted, it would appear, to ten, *viz.* four in 1859 and six in 1860. In two of these cases of occurrence in the Etawah Districts, the dacoits were Bedowreahs from Gwalior Territory, forty-one of whom were, at the request of the Magistrate of the district, seized and promptly brought to justice by the Gwalior Durbar, by whom they all were sentenced to various periods of imprisonment with hard labour, varying from one to fourteen years. In four of the cases no one was seized; in one, three men were seized, who were released; in another, thirty-four persons were taken into custody, but were liberated; in another, of nine men arrested, five were sentenced to five years' imprisonment, two acquitted, one released by the Magistrate, and one escaped; and in the last of the list, of thirteen persons arrested, twelve were restored to liberty, and one died. These robberies were variously committed, there is reason to believe, by Meenah, Goozur, Bedowreah, and Budhuk dacoits. The property plundered on the above ten occasions of quasi-professional dacoity, was valued at the large sum of Rupees 54,774-2-9, of which the portion recovered was only Rupees 48-4-9.

The Lucknow Circle Agency was re-established in 1859. Ten phansigar *thugs*, twenty-eight poisoners, and forty-three dacoits were arrested during the two years, or a total of eighty-one persons, of whom thirty-nine were approvers and convicts who had been set free during the rebellion. In the months of May, July, and October of 1859, five mysterious deaths took place in the Oonao District, which, from the circumstance of ropes being found round the necks of the corpses, created a suspicion that thugs were at work. The criminals of that class, however, in the custody of the Department, would not allow that they were cases of "*thuggee*." All the circumstances showed an absence of *system* on the part of the murderers, and the inference, therefore, was reasonable that the crime was altogether *sui generis*, and that professional thugs had not been concerned in its per-

petration. The conclusion arrived at, was, that the victims had, in the first instance, been drugged, and that the ropes were adjusted in the manner in which they were found, for the purpose that, should sensibility return, death from suffocation should be the inevitable result, the object for such precaution obviously being that no one should survive to recognise the culprits. That poison was not used, moreover, was not proved. The drugs used throughout the country by persons who poison for the purposes of robbery, are chiefly the seeds of the *dhatoora* or "stramonium," and occasionally the roots of the *kunyle* or "oleander odorum," and strychnine or "strychnos nux vomica," called by the natives *koochlu*; and mineral poisons, except sometimes arsenic (*sunkhya*), in the Punjab. Similar cases had taken place in the same place, Pooneah, prior to the mutiny. In the year 1860 thirteen other instances of a similar nature took place in the same neighbourhood. Major Hervey comes to the conclusion that the perpetrators were not professional thugs, but rather some local parties who had hitherto found the means of baffling every enquiry, but of the eventual discovery of whom he does not despair. Captain Chamberlain was sent to investigate the matter.

Independent of the above cases, certain other instances of poisoning took place in the Upper Provinces during the year 1860, particularly on the line of the Grand Trunk Road. Captain Chamberlain was deputed for this duty also, and some arrests of the poisoners were speedily effected. Eleven cases of poisoning in 1859 were reported, and eleven in 1860, in which, out of a total of fifty-two persons victimized, eleven died from the effects of the drug. In these cases the action of the local police was, that of twenty-seven persons arrested on suspicion in nine of the number, five persons were convicted in three cases in which there was no death, of whom three were sentenced to seven years' imprisonment and two to five years, two were under trial in a Sessions Court, one under examination in the local Magistrate's Court, and the rest were released. In the case in the Goruckpoor Zillah in 1860, the five persons poisoned composed an entire police chowkey. In Benares there were twelve cases of dacoity in the two years when property was carried off to the value of Rs. 16,495-1 of which Rs. 5-1-6 only was recovered.

The Bulhuk Dacoit Settlement near Goruckpore was not implicated. The colony was formed by Sir William Sleeman in the year 1844, from those members of that great dacoit tribe, who, with one Dullia Jemadar and two other notorious leaders, had surrendered themselves on terms to Major Ludlow, at that

time the Assistant for the Department at Goruckpore. The spot selected for it was a forest tract in the Turace, which it was hoped they would clear away and cultivate. They are indifferent colonists. "Once a Budhuk, always a Budhuk, and all Budhuks are always dacoits," said one of their number in July 1839, to an Officer of the Department. If imprisoned for twenty or even twenty-five years, he would return to dacoity, "as long as he had the use of his limbs. The tiger's offspring are tigers—the young dacoits become dacoits—will they leave their trade?" "So long as one remains out of the jail, he will be a dacoit," declared another. "If Government wish to extirpate Budhuks," remarked another man, "they should transport all the women beyond the seas, that they may neither give birth to them nor bring up any to the trade." Major Hervey, on a full review of the character and conduct of these incorrigible people, cannot advise any increase to the colony at Saligram, and proposes that it be kept under the strictest surveillance and be suffered to dwindle away. He would not employ them in the Police.

Besides his other onerous duties Captain Chamberlain conducted investigations respecting the murderers of British subjects during the mutiny. While so engaged he obtained information of the existence of a large class of organized robbers of mixed castes. Their chief location is in the neighbourhood of Bangur, in the Hurrodea Talook of Oudh, and they extend their depredations to distant parts of the country. Of these a gang of fifteen persons, committed, according to the account of one of their number, a night robbery in the retinue of the Viceroy when encamped near the Martiniere at Lucknow.

Ellichpore Circle.—There were disposed of in the two years, 80 Dacoits, 1 Thug and 2 Poisoners. The dacoits include two gangs of the Berriah and Sansyah classes, of whom, with a few exceptions, the Berriahs were convicted. They had for some time been in the habit of infesting the districts of the Saugor and Nerbudda Territories south of the Nerbudda river. They form an extensive robber confederacy, and are burglars, highwaymen, cattle-lifters, and dacoits, according as the opportunity suits them. Up to 1847 the Sansyahs had penetrated every region of India, committing very savage dacoities wherever they had the opportunity, and which were almost always attended with bloodshed. Their more frequent occupation since, has been to commit gang robberies upon carts of opium and other merchandise while in transit through Central India to Bombay and other marts. In the North-West the Sansyahs are more generally petty thieves and burglars, and a considerable branch of the

tribe, under the denomination of "Sehoras," extend their depredations to Calcutta, robbing cattle, carts, and travellers along the Grand Trunk Road. The girls of a colony will shun him for a husband who has not already shown that he can baffle the enquiries put to him by the shrewdest policeman, let him cross-question him ever so cleverly. A young married man of the tribe, who, weary of the enterpriseless life led at Jubbulpoor, had joined a colony now in Bundelkund, with the fullest intention of never following the habits of his connections at Jubbulpoor as approvers whom he despised, was at once deprived of his wife, with her own free consent, as she has since informed me, his child was murdered, and he himself turned adrift with a threat of being killed should he ever dare to show himself among them again. Major Hervey's belief is, that these people will be found to be the perpetrators of some of the late mail-cart robberies in the neighbourhood of Indore. There were seventy-four reported cases of dacoity of kinds in this Circle during the two years (fifty-seven in 1859 and seventeen in 1860,) of which twenty-six took place in the Hoshungabad and Seonee Districts of the Saugor and Nerbudda Territories. A very large proportion of the number for 1859, may be set down as the acts of rebels.

Nagpore Circle.—Forty-two dacoits were treated by this Agency. There were seventy-five dacoities, in which eight persons were killed and twenty-eight wounded, and the value of the property plundered amounted to Rupees 43,408-0-6. Only one instance of dhatoora thuggee was reported, which resulted in the death of two persons. The steady pursuit of the Goar and Mooltance *Brinjarah* dacoits by the Nagpore and Ellichpore Agencies combined, contributed considerably to check these robbers in acts of depredation. These indefatigable people are in the habit of conveying grain to the sea-coasts and bringing back salt on their return. They import salt also from the Sambur Salt Lake in Jeypoor Territory and from the salt-pans of Bhurtpoor. They are therefore attended for the purpose sometimes by immenso droves of pack bullocks, and their irregular march through the country invariably presents a long straggling line of men, women and cattle. Their progress, too, being slow, and their encampments generally in some jungle tract or desert waste, they find ample opportunities for following their secret vocation of dacoity. Some able-bodied men of their number are easily able to strike off from the direct line of their advance, rapidly perpetrate a dacoity, and rejoin the march or the encampment by the early morning, with their booty, without detection. *Brinjarahs* are, in Southern India, more generally called *Lawanahs* or *Lumbancees*—both terms literally signify their ostensible

vocation, namely, conveyers of grain and conveyers of salt. They form most valuable auxiliaries to the army commissariat with troops in the field. The late Duke of Wellington, as Colonel Wellesley, was dependent entirely upon them for his supplies in his early campaigns in the Southern Mahratta country. They are in religion Hindoos; but in Central India there are two robber classes, who, although they are Mahomedans, closely resemble them in appearance and occupation, namely, the *Mooltanees* and *Chugras*—both ramifications of one and the same tribe, but they do not intermarry, and have their own distinct slang languages. Both, like the Brinjarahs, are wandering tribes. The Mooltanees chiefly convey grain and other articles of consumption, and visit the eastern sea-coast of Ganjam for salt, cocoanuts, &c. The Chugras bring salt from the inland salt lakes, and from the Surat sea-coast, and a portion of the latter tribe deal in cattle, with large droves of which they travel about in all directions. They are met with in Southern India; but when so engaged they are not to be identified with a race of similar aspect called Charuns similarly occupied.

Hyderabad Circle.—Fifty professional dacoits were disposed of during the two years under report, consisting of Kolies, Dhars, Mooltanees, Pardhees, and Khaikarees: twenty-three others remaining under investigation on the 31st December 1860. The dacoities of a professional nature, that have taken place in the Province, would appear to have been generally organised by Dhars, Mhaugs, and Khaikarees, and by a Mahomedan class of robbers called *Booreebafs*. The most daring marauders in the dominions of the Nizam are the *Rohillahs*. Crime in Hyderabad Territory, by the professional classes, had decreased in proportion with the increase of outrages committed by the *Rohillahs*. But the recent example of deportation from Hyderabad to the jail at Tannah (Bombay), preparatory to transportation of a large band of this turbulent and lawless race, has greatly dismayed the entire body. They have learnt with considerable uneasiness that they are, for the future, to be arraigned before a British Officer; for, hitherto, they had been tried only by the local native authorities; and their invariable practice was, when confined in His Highness' forts, to take the first opportunity to rise upon their guards and effect their escape. Of ninety-six *Rohillahs* tried at Hyderabad, under the supervision of Captain Fraser, forty were released; and fifty-six were, on conviction, forwarded to Tannah for transportation to the Andamans. There is information against one hundred and ninety-two of these people, of complicity in the plunder of Nelingah, a town in the districts lately restored to His Highness.

Bombay Circle.—The number of dacoit prisoners disposed of

by this Agency during 1859 and 1860 was forty-one, four remaining under investigation at the close of the year. The numbers of dacoities during the two years, were twenty-four in 1859 and fourteen in 1860. The following figures show how the crime of dacoity, once so rife, has decreased since 1847 when the Agency was established.

No. of Cases.			No. of Cases.		
1846	...	...	334	1854	...
1847	...	...	173	1855	...
1848	...	...	159	1856	...
1849	...	...	124	1857	...
1850	...	...	120	1858	...
1851	...	...	85	1859	...
1852	...	...	60	1860	...
1853	..	...	67		...

There has been a similar decrease in gang burglary. In the Dharwar Collectorate alone, cases of gang burglary used to range from 250 to 450 per annum, the number committed in 1851 being 451. In 1852 they decreased to 157; and in 1859 they amounted, *in the three Collectorates together*, to no more than 135. Besides the *Kharkarees* the other local robbers of the Bombay Presidency, who may be called professional criminals, are the *Mhaugs* and *Ramoosees*. Both classes may be said to be generally village and household watchmen.

GENERAL REMARKS.

The Meenahs of Ulwar, Bhurtpoor, and Rajpootana, as professional robbers, are in the habit of infesting the districts of the North-West adjacent to Agra. Whatever may have been their conduct during the rebellion, the measures adopted against them in 1855 and 1856 served to restrain them in lawlessness in subsequent more peaceful times.

Dacoity.—The *Mhaugs* have similarly forsaken their vocation. What the *Mhaugs* are in Southern India, namely, “Rukhwal-dars” or village watchmen, the *Meenahs* are in Rajpootana and the Ulwar Territory, where they are the recognised village “chowkeedars;” and it was the same evil system that obtained in both countries, by which both *Mhaugs* and *Meenahs* were required to make good the full amount of the property robbed within the limits of their charge, that led both to resort to the same means by which to be able to do so, namely, by dacoity. Of the crime of dacoity, Major Hervey thinks it may safely be said, upon a full consideration of this Report, that, as a *profession*, it has considerably decreased. The Department does not receive any regular reports of its occurrence in Native States, and it cannot, therefore, be stated whether those territories are as free from it as the districts under British rule. There are,

unquestionably, numerous gangs of "dacoits," simply so called, in all parts of India; but most of them may be regarded as local organizations. Of the dacoits who are so by hereditary descent and profession, perhaps as much has been learnt as ever will be acquired.

Thuggee.—The crime of thuggee by strangulation may, on the whole, be said to have been suppressed throughout British India, in the Punjab the practice has been confined to a single people, the Muzbees. Thirty-six thug approvers, one hundred and forty-seven dacoit approvers, and fifty-eight thug and dacoit prisoners, escaped during the mutiny from the offices of the Department at Agra, Etawah, and Lucknow, or deserted from the police into which they had been introduced, or a total number of two hundred and forty-one professional criminals. Of these one hundred and fifty-nine were re-captured by the Department, or surrendered themselves to its Officers.

Major Hervey states, in conclusion, that this is the first full Report for many years of the operations of this Department. The last Despatch from the General Superintendent, embodying the fullest particulars, was dated in 1848.

STATEMENT showing the number of Thugs arrested during the years 1859 and 1860 by the Officers of the Department, and the number still remaining at large in the Continent of India.

No. of Class.	CLASS OF CRIMINALS.	Remaining at large at the end of 1858.	Denounced by the approvers & admitted in 1860.	Total.	Arrested during the year.		REMARKS.
					Remaining at large on the 1st January 1861.		
	THUGS.						
1	Punjabee Phansigar	664	15	679	41	511*	* Properly the number remaining to be seized should be 638, but 127 of them are really dacoits, and they have therefore been transferred to Statement C.
2	Ditto Dhatooreca ...	...	36	36	17	19	
3	Hindoostanee Phansigar ...	399	6	405	6	399	
4	Ditto Dhatooreca ...	38	22	60	22	38	
	Total	1,101	79	1,180	86	967	

STATEMENT showing the number of Dacoits arrested during the years 1859 and 1860 by the Officers of the Department, and the number still remaining at large in the Continent of India.

No. of Class.	CLASS OF CRIMINALS.	Remaining at large at the end of 1858.	Denounced by the approvers and admitted during the years 1859-60.	Total.	Arrested during the years 1859-60.	Remaining at large on the 1st January 1861.	REMARKS.
	DACOITS PROFESSIONAL.						
1	Budhuks ..	749	36	785	36	749	
2	Mooltancee and Gooar Brinjarahs ...	455	6	461	12	449	
3	Chugras ..	...	96	96	...	96	
4	Khaikarees ...	516	77	593	77	516	
5	Kunjurs and Sansyahs	152	20	172	20	152	
6	Pardees ..	99	1	100	3	97	
7	Jakunkars ..	50	.....	50	....	50	
8	Koolhatees ...	165	1	166	10	156	
9	Keochucks ..	120	..	120	...	120	
10	Berihs ..	36	14	50	16	34	
11	Maughas ...	55	3	58	11	47	
12	Gogurs, &c. ...	12	...	12	...	12	
13	Bedowreahs ..	45	.....	45	.....	45	
14	Meenahs ...	108	.....	108	...	108	
15	Moongeeahs ...	95	.....	95	...	95	
16	Punjabees ..	159	.....	159	10	149	
17	Booreeahbafs ...	108	23	131	2	129	Including 127 transferred from the thug list.
	Total ...	2,924	277	3,201	197	3,004	

THE HYDERABAD MEDICAL SCHOOL.

1859.

India Records, No. XXXIV.

DR. G. Smith, Residency Surgeon and Superintendent of the Hyderabad Medical School, submits to Colonel C. Davidson, the Resident, the Report which was read on 16th March 1859.

History of the School.—This Medical School, originated by General Fraser to whom it owes much, is intended for the instruction in Surgery and Medicine of educated natives of Hyderabad, the object being, not to prepare for the public service a class of medical subordinates, but to train up medical men qualified to undertake private practice in the city, and fitted to act as talookha surgeons under the Native Government. The Hyderabad Medical School was founded upon the wants of the country, approved of by the Nizam's Government, and opened in September 1846 under the superintendence of Dr. Maclean.

Native Doctors.—In Hyderabad the art of Medicine is practised by a few *hukeems* of respectability, with some of whom the profession is hereditary, with others not. The educated *hukeems* are men who have received a good education in the oriental acceptation of the term, that is, they know Arabic a little, Persian fairly, and are more or less conversant with the works of the Arabic physicians. In prosecuting their studies, they place themselves under some *hukeem* of eminence, and follow his directions; after an uncertain course of study, they prescribe for the sick under their teacher's observation, and soon set themselves up as independent practitioners, without the formality of a previous examination into their qualifications. The *hukeem* has nothing to do with Surgery or its operations; sometimes he lets blood, but rarely; he writes prescriptions, but keeps no medicines, unless it be a few special compounds and specifics. His fees are uncertain; the higher class of *hukeems* name no sum, and importune for no reward; most of the eminent *hukeems* receive Government pay, and some of them have jaghires of considerable value. When a patient recovers under their treatment, he generally, if a wealthy man, makes a present to them in money or in kind, commensurate with his ability and gratitude. The system of monthly allowances is known, and in some high houses the *hukeem* is engaged on fixed pay, as a permanent retainer of the establishment. Some of these gentlemen are men of sense and ability, though wedded to their own system and opinions; they

have no dispensaries or hospitals, and few show any real kindness to the sick poor as medical men.

Native hukeems such as above described belong to the more enlightened class of medical men practising in Hyderabad. There are others, forming the majority, who are more ignorant and prejudiced, who believe in the efficacy of charms and in the virtues of pounded rubies, pearls, and emeralds—medicines suited to the exclusive constitutions of the great and wealthy. Their belief in the existence of occult drugs of wonderful power is quite childish, and their estimation of the value of a medicine by its rarity, and by what it costs to procure it, is a principle of valuation not confined to the Deccan. Many believe in the transmutation of metals, and spend time and money in the hopeless enquiries of alchemy. They value, however, such English medicines as cinchona and quinine, sarsaparilla, cod-liver oil, jalap, cream of tartar, and colchicum. Most of our forms of administering medicine also are used by them; they are deeply learned in tonics and aphrodisiacs, and well versed in all the niceties and austerities of oriental regimen. Besides these classes, there is also a class of uneducated quacks who do much mischief. They are dealers in cures for impotence, in specifics and talismans, and make their way by impudence and unhesitating asseveration—in short, they are the Morisons and Holloways of Hyderabad, with less polish perhaps than their English prototypes, but with equal impudence and effrontery.

The *hujams*, or barber caste, are the surgeons of India; they let blood and operate, sew up wounds, arrest hemorrhage, and perform the minor, as well as, unfortunately at times, some of the major operations of Surgery. They are regarded as people of a low class; their coolness and ignorance are astonishing; they rub recent fractures, cauterize dislocations and rheumatic joints indiscriminately; they cut into cerebriform tumours, and arrest bleeding by the application of boiling oil. They bandage at times to mortification, they use rude splints on the principle of Gooch's, and are deep in the mysteries of cauteries, marking nut leaves, and liniments. As they are paid one anna for each suture, they generally contrive to put six where two would have sufficed, and it matters not where the wound is situated, whether on the leg or the scalp, the same industry and ingenuity in multiplying sutures are equally displayed. Dr. Smith has seen a severe wound of the abdomen treated by inverting, over the protruded folds of the intestine, the kernel of a half cocoanut, the whole mass being then carefully pushed into the abdomen, and the edges of the wound stitched over it.

The *herbalists* are generally of the shepherd class; they bring

their drugs from the jungle, and sell them to the druggists in the bazaars; they prescribe a little, and eke out their practice with incantations and charms. Besides these herbalists, a class of gypsies are largely patronized by the poor; they deal in charms and secret specifics.

The *druggists* or *Passarees*, are chiefly Hindoos; they generally keep a *Moonshee* to read the *hukeem's* prescriptions; their prices are at times exorbitant; they prepare no infusions or decoctions: they sell the raw drug, and the patient prepares it for use in his own house. The drugs in their stores are of uncertain action, being badly selected and carelessly kept, and serious accidents, in substituting one medicine for another, are not of very uncommon occurrence.

Oculists come occasionally from Hindoostan. Although ignorant men, some of them are successful operators for cataract. They only attempt hard cataracts; their instruments consist of a lancet and a blunt probe, with a few cauterics. *Lithotomists* rarely make their appearance; sometimes they are oculists as well, but generally they restrict themselves to the special operation for vesical calculus; the operation is a rude but, in the inexcitable constitution of the native, not always an unsuccessful one. The patient is placed on his back on a cot, his head and shoulders resting on the lap of an assistant, who holds him fast; the operator's fingers are then passed into the bowel, the stone searched for, and hooked forward by the finger towards the perineum, where an incision is made, and the calculus removed by a rude hook, in reality a seven-inch nail, blunt and slightly rounded: the wound is kept clean, and, if necessary, slightly fomented. Unsuccessful results are by no means uncommon, as we might *a priori* have expected.

This account would be incomplete without a notice of *Fakeers*, *Byruges*, and other *religiosi*, with their specifics, charms, holy sentences, astrology, &c. The female sex are very partial to these forms of medical practice. As the paper on which the valued sentence is written, is at times dipped in croton oil, we can understand how one effect at least can be secured, without having recourse to the supernatural for an explanation.

The *midwives* are generally low women of the *Teloogoo* caste; their ignorance is extreme, hence the proportion of deaths from parturition in the city is something fearful to reflect upon. Whilst, among us, one life in about two hundred accouchements is lost, with parturient women in Hyderabad the mortality may be safely rated at from 30 to 40 per cent. When the case is one requiring surgical interference, these midwives send for the wives of the barbers, who operate in the most ignorant and cruel manner,

with a sickle and hook ; both classes of women are professional procurers of abortion, a crime sufficiently common, and regarded in the Deccan as by no means of an infamous character. The customs and treatment of the parturient and puerperal state being in direct contravention of common sense, there results a great mortality among the mothers of Hyderabad, chiefly from protracted labours, hemorrhage, tetanus, and puerperal fevers.

Leech-women constitute the last class : leeches abound in this neighborhood, and are much used by the natives. Women apply them, and as they receive two pice for each leech, the number applied will always bear more reference to the size of the affected part, than to the strength of the patient or severity of his disease. Dr. Smith has known as many as two hundred and fifty applied within three days to the rheumatic ankle of a weak and anemic man. Native Doctors admit that improvements have taken place in Surgery, and they candidly yield the palm of operative skill and boldness to the English surgeon, but they do not admit his skill and superiority in medicine, and in dietetics they feel convinced that he has every thing to learn.

Progress of the School.—The number of pupils was limited to thirty. In spite of all difficulties Dr. Maclean gradually succeeded. In 1848, the dispensary was enlarged, and the present school built ; about this time the Hon'ble Court called for a special report upon the operations of the school. A committee was nominated, and the system of instruction was submitted to scrutiny. The report reflected credit upon Dr. Maclean, and elicited the approval of the Court. Few in the city, except Suraj-ool-Moolk Dewan and Shums-ool-Oomrah, had much interest in the success of the experiment. High authorities for a time looked coldly upon it, but successive Residents lent it the aid of their personal and official countenance. In 1853, the first results of the labor of seven years were to be made apparent : eighteen candidates for the certificate of qualification were examined by a committee. The standard adopted was a high one. Of the candidates ten were passed as qualified, and received the final certificate of the institution. In 1854 seven of the remaining eight candidates were found qualified. Thus seventeen young men were prepared for the responsible duties of private practice by Dr. Maclean, who had besides the satisfaction of seeing them all provided for, before handing over his labors to his successor. This gratifying result he owed to the kindness of the Nuwab Mookhtar-ool-Moolk Salar Jung Bahadoor, who took into his service eleven huakeems, and of the Nuwab Shums-ool-Oomrah, who provided for two of the remaining four : two have settled in private practice, one has just returned with his relative and patron from

Meeca, and the fourth is dead. In December 1854 Dr. Smith succeeded Dr. Maclean, and opened the first session in February 1855.

The System.—The school is open five days weekly. The students are divided into classes, of which the senior is directly under the Superintendent, the second class under Mr. Sub-Assistant Surgeon Murray, and the junior class under Hukeem Meerza Ali Sahib, the native assistant teacher and former pupil of the school. At 8 o'clock daily the bell is rung and the attendance roll called. The senior and second classes then proceed to the dispensary, where they receive clinical and pharmaceutical instruction. The sick are seen and prescribed for, operations are performed, and the best use is taken of the occasion by commentaries upon the cases to supply as far as possible the want still existing of a Clinical Hospital. The dispensary affords relief to from two to three hundred patients monthly, besides having accommodation for eighteen clinical cases; so that a very fair opportunity is afforded the students of becoming practically familiar with the principal diseases of the Deccan. Most of the minor and, under certain restrictions, some of the major operations, are performed by them. The lectures at school begin at 8 and 9 A. M., as the students happen to belong to the junior or senior classes. Each class receives, in addition to dispensary practice, two hours' instruction daily.

From experience it is found that two hours' oral instruction daily is as much as the pupils can take down in writing and master satisfactorily: each pupil takes down the whole lecture, as delivered, with the diagrams drawn at the time to illustrate the subject. Thus each pupil, on leaving school, takes along with him a more or less complete copy of the whole course. The session, which opens annually in February, extends from that date to Christmas, a period of eleven months. Deducting the established native holidays, and the necessary suspension of work during the month of May, the students receive instruction each session, during nine calendar months, three hours daily, five days a week. The subjects of tuition are arranged so that generally only one, and never more than two, is taught to a class at one time. The lectures are delivered in Hindustani alone, and are freely illustrated with diagrams drawn chiefly during the delivery of the lecture, an immenso help to the lecturer. In admitting candidates to the school, the following qualifications are, as far as practicable, insisted upon, namely, respectability of family, good education and conduct, the existence of an earnest desire to study, the possession of the

means of support during student life, and the promise of strict obedience to all the rules of the institution. In the matter of age, young men are preferred whose age does not fall short of 17 nor exceed 25 years. The students of the school, with two exceptions, are Mahomedans; one Hindoo alone is at present upon the roll.

Journal.—Feeling the necessity of keeping up a connection between the school and the passed hukeems, and of stimulating them to study and observation, a medical journal in Hindoostanee was started in 1855. Already ten numbers, constituting the first volume, have been issued, and the good contemplated has, to a certain extent, been realized. Copies of this journal are regularly sent to each hukeem, and given to each student, whilst fifty copies of each issue are forwarded to the Government of Calcutta, Madras and Agra, and twenty-five to the Government of Bombay. The issue numbers three hundred copies, of which the expenses of one hundred are borne by the minister, who also grants the use of his lithographic press, and the expense of the remaining two hundred copies is defrayed by the subscriptions of the respective Governments above named.

Importance of such Schools.—In the conclusion of his Report Dr. Smith says—"Institutions like the Hyderabad Medical School, in the system of dependent dispensaries, springing naturally and in course of time out of its operations, might be multiplied in India, especially in independent Native States, with advantage. In our educational schemes we aim, perhaps, too much at the complicated and expensive; we have, if not too many colleges, at least too few schools; we are apt to crave for the imposing, and overlook the humble and useful. Dr. Maclean's work shows what one man's energy can achieve with small parade, narrow means, and moderate encouragement; and it would be well if those in power were to enquire whether it might not be advisable to embody in their schemes of education, local medical schools, on the model of this at Hyderabad. In fitting localities, and at a distance from the Medical Colleges of the Presidencies, such institutions would assuredly thrive; local centres of education, they would attract the notice and interest of the natives; local centres of philanthropic effort, their working would soon be appreciated, whilst local outlets for intelligence and industry would be afforded to those whose outlets for exertion are very few indeed. The gradual rise of dispensaries, and the useful as well as honorable occupation offered to their sons, would interest deeply the native mind, and would act most powerfully in dis-

arming prejudice, and in hastening on light and civilization. Besides the direct advantages to human suffering in all its forms from such schemes; it must be remembered there are few means so well calculated as this to secure the favorable introduction of the English language, and with it, of all science and light, especially to the Mahomedan population. Under the shelter of medical art, all science may be taught, for the hukeem is respected as a physician and listened to with attention as a teacher. Nor is this all; in inculcating the lessons of his profession the medical teacher can instil higher principles into his pupils, love of truth and honesty, kindness, charity, unselfishness, thoughtful and industrious habits, consideration for the poor and afflicted, which, though far short of the grand motives which are demanded by our God, still, in their absence, supply a standard much above that generally acted up to by the peoples around us."

The whole scheme of the School, with its ten affiliated Dispensaries in active operation, costs the Native Government about Company's Rupees 1,280 per mensem, or Company's Rupees 15,360 per annum.

MADRAS COURT OF SMALL CAUSES.

1861.

THE following Statement exhibits the leading points of the Court's operations as compared with their results in 1860.

	1861.	1860.
Number of Causes instituted ...	23,054	19,778
Do. Defendants summoned	27,714	24,489
Amount of Summons Fees ... Rs.	92,789 13 0	87,955 13 0
Number of Witnesses Subpoenaed	15,147	23,273
Amount of Subpoena Fees . Rs.	6,347 10 0	3,529 6 0
Half-costs refunded ... "	15,451 1 0	13,086 2 6
Value of property litigated ... "	6,42,196 7 11	5,02,417 6 9
Number of Causes undecided ...	203	132
Expenditure ... Rs.	68,756 15 10	63,700 7 11
Net amount carried to credit of Government ...	91,048 1 6	63,294 8 3

The expenditure for 1861 was Rupees 6,684-0-2 less than the

Budget Estimate Rupees 75,441. The difference therefore between it and the net income, as detailed in the foregoing table, leaves a balance in favor of Government of Rupees 22,291-1-8. This is the first year in which the Court has yielded a Revenue in excess of its expenditure. The funds of the Court were augmented by a large increase in actions against parties residing in the Mofussil. Moreover the recent legislation for the limitation of suits, was the means of pressing suitors into Court. Steps were successfully taken to remedy the grievance of which witnesses complained of their being unnecessarily brought to Court. The following figures shew the result.

	1861.	1860.
Number of Causes ...	23,054	19,778
Number of Witnesses Subpœnaed	15,147	23,273

Of the 23,054 Causes instituted, showing 83 to have been the average number daily, 22,014 were set down for hearing and which were disposed of as follows :—

Judgment for Plaintiffs ...	...	...	11,633
Do. for Defendants ...	...	...	760
Nonsuited ...	...	...	428
Struck out ...	...	...	166
Compromised ...	...	...	8,824
Undecided ...	...	...	203

The number of Causes undecided or adjourned is large but notwithstanding the large increase in the business of the Court, which for ten months of the year was performed by two Judges, without an exception the 203 Causes were adjourned at the request, and for the sole convenience, of the parties interested. The Court sat 278 days and was closed 87.

Abstract Statement of Causes heard and how disposed of with the Commission and Fees leviable thereon, from January to December 1861.

Months.	Judgment for Plaintiff.	Judgment for Defendant.	Non-suited.	Struck off.	Compromised.	Undecided.	Total.	Commission and Fees.
								Rs. A. P.
1851.								
January	854	76	61	27	728	.....	1,746	6,393 1 0
February	838	60	28	19	649	.....	1,594	6,414 2 0
March	891	83	20	2	661	.....	1,657	7,474 10 0
April	839	51	22	14	627	.....	1,553	7,641 6 0
May	986	64	20	9	847	.....	1,926	11,072 12 0
June	1,051	74	33	12	845	.....	2,015	7,673 7 0
July	1,052	79	33	21	763	.....	1,948	6,875 0 0
August	1,074	55	32	15	843	.....	2,019	7,110 9 0
September	1,052	55	43	8	747	.....	1,905	6,776 12 6
October	1,013	69	45	9	772	.....	1,908	8,233 12 0
November	1,070	52	40	12	676	.....	1,850	6,800 12 0
December	913	42	51	18	666	203	1,893	8,467 14 0
Total	11,633	760	428	166	8,824	203	22,014	90,934 1 6

Statement showing the number of Suits instituted in the Madras Court of Small Causes and the amount of Fees realized thereon during the years 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, and 1861, together with the progressive increase and decrease in each year.

Year.	Number of Causes instituted.	Increase of Causes in each year.	Decrease of Causes in each year.	Fees realized.		Increase of Fees in each year.		Decrease of Fees in each year.	
				Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1851	23,068	.....	.....	37,417	7 0	.....	.....	.....	.....
1852	24,392	724	.....	43,349	2 3	5,931	11 3	.....	.....
1853	25,192	800	.....	46,479	10 0	3,130	7 9	.....	.....
1854	26,483	1,291	.....	49,281	10 0	2,802	0 0	.....	.....
1855	26,199	.....	284	51,754	12 0	2,473	2 0	.....	.....
1856	22,869	.....	3,330	43,682	14 6	.....	.....	8,071	13 6
1857	17,674	.....	5,195	36,909	10 6	.....	.....	6,773	4 0
1858	18,020	346	.....	43,564	13 6	6,655	3 0	.....	.....
1859	18,374	354	.....	54,600	2 0	11,035	4 6	.....	.....
1860	19,778	1,404	.....	63,294	8 3	8,694	6 3	.....	.....
1861	23,054	3,276	.....	91,048	0 6	27,753	9 3	.....	.....

LAND REVENUE ADMINISTRATION OF BENGAL.

1860-61.

Collection.—On 29th November 1861 the Board of Revenue submits to the Government of Bengal statements illustrating the results of the Land Revenue administration of the Provinces under their control in the year 1860-61.

The Hal and Bukya Collections, on an aggregate demand of Rs. 4,11,27,348, amounted to Rs. 3,78,70,648, being at the rate of above Rs. 92 per cent., leaving about $7\frac{1}{2}$ per cent. outstanding at its close, besides $\frac{1}{2}$ per cent. remitted. The remissions during the year amounted to Rs. 1,49,626, of which sum Rs. 1,02,210 were on account of current revenue, and consisted of the following items :—

Khalaree remissions, on account of lands occupied for purposes of salt manufacture	...	...	Rs. 91,375
From other causes, chiefly land revenue remitted in Behar and Chota Nagpore to Chieftains for good service during the late disturbances	...	...	„ 7,335

The Bukya remissions were of small amount. The collections on account of estates on the Fluctuating Towjee included in the preceding statement, amounted to Rs. 17,97,490, on a demand aggregating Rs. 20,49,099, being at the rate of $87\frac{1}{2}$ per cent., leaving a balance outstanding at the close of the year of $11\frac{1}{2}$ per cent., after remissions amounting to a little more than half per cent. In most Districts an increase appears in the current revenue demand in consequence of re-settlement. It is greatest in Kamroop, Backergunge, Jessore, Ramree, Patna, Pubna, Lukhimpore, and Nowgong. There is a falling off in Shahabad, (owing to the grant of some large jagheers as rewards for loyal services,) Dinagepore, and a few other Districts, but not to any noticeable extent. The net increase is Rs. 84,483. The aggregate results shown in the following table are considerably in favor of the year under review in every point; the demand was larger, and the percentage of collections higher, both of Hal demand and Bukya balances :—

YEARS.	DEMAND.			PERCENTAGE COLLECTED.						Peren- tage remitted.	PERCENTAGE OUTSTANDING.					
	Hal.	Bukya.	Total	Hal.	Bukya.		Total	Rs.	A. P.		Rs.	A. P.	Rs.	A. P.	Total	
					Hal.	Bukya.										
																Rs.
1850-60 ...	3,77,81,888	33,84,402	4,11,66,290	91 8 7	91 11 11	91 8 10	0 9 8	8 2 9	4 2 10	7 13 6						
1860-61 ...	3,78,66,371	32,60,977	4,11,27,348	91 13 3	95 0 0	92 1 4	0 5 10	7 14 5	3 8 9	7 8 10						

The Redemption of Revenue on estates paying a sudder jumma not exceeding one rupee, and in Calcutta where there is no such limit, is seen in the following table. In the preceding year the revenue of 285 estates only, bearing a sudder jumma of Rs. 324-10-4½, was redeemed for Rs. 4,412-5-11½.

DISTRICTS.	Number.	Sudder Jumma.			Price.		
		Rs.		P.	Rs.		P.
		As.	As.		As.	As.	
Bhaugulpore	3	1 6 8	14 2 8	...
Monghyr	7	5 4 14	53 1 2	...
Chittagong	71	23 0 3	230 2 6	...
Dacca	1	0 2 2	1 5 8	...
Calcutta	437	1,190 10 7	17,859 14 9	...
Nuddes	17	6 4 11	63 1 2	...
Total	536	1,226 13 6	18,221 11 14	...

Government Estates.—The number of estates the property of Government is 7,324, or 281 less than in the previous year; the large number of removals is caused by the sale of the proprietary right of Government. The number of estates acquired in Chittagong is owing chiefly to the Kupas Mehals being now shown in the Statement for the first time. The aggregate demand amounted to Rs. 29,33,910, of which Rs. 23,14,815, or nearly 79 per cent., was collected during the year, and $1\frac{1}{4}$ per cent. remitted from the rent-roll during the year on account of dilution; of these eight, bearing a jumma of Rs. 19-1-6 only, were in Chittagong, and eleven, with a jumma of Rs. 81-6-6 $\frac{1}{4}$, in Monghyr. The remaining fourteen estates belong to nine districts. The amount expended or set apart for the improvement of Government estates from the 3 per cent. on the net collections sanctioned for this purpose was Rs. 2,589-6-8 expended and Rs. 48,723-1-6 set apart. Except in Cachar little use was made of this fund, for that did not feel the condition restricting the application of the percentage to the particular Mehal from the collections of which it is derived. The Board recommend the withdrawal of this restriction.

Disqualified Landholders.—Two hundred and fifty-five estates were brought under the management of the Court of Wards during the year, and 38 released from wardship, leaving the present number 486. These estates belong to 74 wards, of whom 53 are boys, 16 females, and 5 disqualified otherwise than on account of sex or minority. Of the Revenue demand, amounting to Rs. 5,17,209, Rs. 4,58,857, or 88 $\frac{3}{4}$ per cent., was realized within the year. The remissions amounted to 9 pie per cent. The rent demand aggregated Rs. 17,66,225, of which Rs. 12,41,056, or 70 $\frac{1}{4}$ per cent., was realized within the year. The disbursements during the year aggregated Rs. 10,63,108, of which Rs. 5,60,036 were on accounts other than payments of Government revenue and expenses of management. The number of pupils at the Wards' Institution in the Circular Road, Calcutta, was nine, which is below the average of previous years. Two of these are Brahmins, three Khetrees, two Kaesthas, one Jogee, and one Koch. Their ages range between 12 and 17 $\frac{1}{2}$ years; five of the boys are from the Province of Cuttack, and four from Bengal Districts. The Board instructed the District Officers to send to Calcutta all Hindoo wards with estates yielding a net annual income of Rs. 4,000 and upwards, and they requested the Sudder Court to bring the existence of the Institution to the notice of the Judicial Officers in the interior.

Estates under Attachment.—There were 142 estates under attachment during the year by order of the Civil Courts, and

114 by order of the Criminal Courts. The revenue demand of these 256 estates aggregated Rs. 1,45,146, of which the proportion demandable in all the estates, after they came under attachment, was Rs. 1,09,267, making with the balance of the previous year Rs. 1,12,580 due on account of Government revenue. Of this sum Rs. 1,12,364, or upwards of 99 per cent., was realized within the year. The Mofussil rental demand aggregated Rs. 3,79,660, of which Rs. 2,67,528, or 70½ per cent., was realized within the year.

Act X. Cases.—There were 61,398 suits instituted under Act X. of 1859 during the year, which, with 7,269 remaining from the previous year, made the total number on the file 68,667. Of these, the suits for arrears of rent numbered 45,835, or three-fourths of the whole number of cases instituted. The total number disposed of was 60,279, leaving 8,388 on the files at the close of the year. The suits for arrears of rent were most numerous in the Districts of Backergunge, Jessore, and Nuddea. The indigo disturbances account for the large number in the last two districts; in the first District the number, though large in itself, is not much more than one-half the number instituted when the old laws were in force. The following memorandum compares the institutions in 1858-59, the last year of the operation of the old Summary Suit Laws, with the two years which have since elapsed.

	Suits for arrears of rent.	Suits of all other kinds.	Total.
<i>Summary Suits.</i>			
Instituted in 1858-59	40,340	6,976	47,316
<i>Rent Suits under Act X. of 1859.</i>			
Instituted in 1859-60, nine months	11,864	7,551	19,415
(Which is equivalent in the twelve months to)	15,819	10,068	25,887
Instituted in 1860-61	45,835	15,563	61,398

Excluding the exceptional Districts of Nuddea and Jessore from each period, the following is the comparison :—

	Suits for ar- rears of rent.	Suits of all other kinds.	Total.
<i>Summary Suits.</i>			
Instituted in 1858-59	35,391	5,740	41,731
<i>Rent Suits under Act X. of 1859.</i>			
Instituted in 1859-60, nine months ...	11,095	7,243	18,338
(Which is equivalent in the twelve months to)	14,793	9,657	24,450
Instituted in 1860-61	33,973	13,666	47,639

Its provisions for the recovery of rents are already as largely resorted to as were those of the old laws. Suits for purposes other than the recovery of arrears of rent are more than twice as numerous as they were in the last year of the old Summary Suit Law. After a trial of two years, and tested very severely under the excitement created by the indigo disputes, the law has been found to work successfully. The executions of decrees are to the number of rent suits instituted as 1 to 5½. Of such cases 9,095 were disposed of within the year, leaving 2,081 pending at its close, of which 103 had been pending more than three months, and 15 more than six months.

Resumption Suits.—There were 5,552 of which 2,038 were disposed of. Of these 271 with a jumma of Rs. 19,348-8 were decided in favour of Government. The great majority of suits in this statement are those instituted on the part of Government as Zemindars, under the provisions of Section 30, Regulation II. of 1819.

Estates sold for Arrears.—The number of estates sold is nowhere large except in the Chittagong District, where almost all the estates are petty and of trifling value. There were 390 with a jumma of Rs. 27,184 which realised Rs. 3,52,158. The proportion of price to jumma was 13. The prisoners confined for Government demands were :—

	1859-60.	1860-61.
Number in confinement ...	26	27
Released	22	24
Remaining in confinement ...	4	3

Settlements.—There was a large amount of settlement work in

Shahabad owing to the confiscation of the estates of rebels. Of 619 such villages with a jumma, prior to confiscation, of Rs. 1,15,873, 368 were finally settled, producing a jumma of Rs. 2,27,027, the former jumma of these having been Rs. 72,018. In the course of these settlements, 1,188 claims to hold lands rent-free were tried. One hundred and sixty-seven of the settled villages have been bestowed in reward for loyal services, some as rent-free grants and some bearing a jumma. The number of villages awaiting settlement is 251, bearing a jumma of Rs. 43,854 prior to confiscation. It is estimated that the new jumma after settlement will be Rs. 1,23,244. In Behar the settlement work was very heavy. In Cachar 411 holdings were settled at a jumma of Rs. 28,852. In this sum is comprised Rs. 5,258, the eventual jumma of jungle lands leased in 24½ plots to natives for rice cultivation, for a term of 19 years; the jumma increases progressively till this maximum is attained. Of the above amount also, Rs. 15,000 is the revenue derived from the lease for two years of the Sealtaik Ghaut, where timber cut in the forests and floated down the river is subjected to the payment of a duty; and Rs. 3,594 consists of revenue derived from the house tax imposed on the tribes inhabiting the hills. Five tea grants were measured, and the terms of settlement arranged, and 34 remained, of which 8 had been reported for confirmation. The settlement work done during the year and remaining for the ensuing season in the Province of Assam is exhibited in the following table:—

DISTRICT.	SETTLEMENTS COMPLETED.		SETTLEMENTS TO BE MADE.	
	Number of Mehals.	Jumma.	Number of Mehals.	Jumma.
Kamroop	56	1,30,203	54	1,11,000
Durrung	233	1,48,768	143	79,848
Nowgong	15	1,54,436	246	94,300
Scebsaugor	59	41,928	61	60,195
Lukbimpore	99	33,123	74	18,999
Cossyah Hills	46	1,571	45	18,620
Total	508	5,10,029	623	3,82,962

Soonderbuns.—There were 408 estates in charge of the Commissioner in the Soonderbuns during the year, of which 150 were lots granted, and 88 lots not yet granted. The resumed *Mehals* numbered 64, and Henckell and Donnelly's *Mehals* 106—40 of the latter description having during the year been released under Regulation II. of 1819. There were ten *mehals* under *Khas* management with a demand of Rs. 1,33,035, of which Rs. 132,817 was realized within the year. Mr. Roily appeals to this result as "the best criterion of the principles on which *ryotwaree* assessments have been based and the fairness of the rates." Thirty-eight Government estates remained for settlement in the ensuing season, the ultimate *jumma* expected from which is calculated at Rs. 74,500, besides eleven *mehals* to be resettled at an expected *jumma* of Rs. 3,000. Besides this work there are 22 allotments to be inspected, 36 cases in which local investigations are requisite, and 43 resumption suits for trial. In the course of the year the Deputy Collector measured 10 estates whose area aggregated 40,800 *beegahs*, and the Assistant Surveyor 21 estates with an area of 112,860 *beegahs*.

Natural Products.—In the *Bhaugulpore* Division coal is procurable in the *Damun*. The mines have not as yet been worked to any depth. The coal hitherto found, though of inferior quality, answers for burning lime and bricks, and is so used by the Railway Company, but the expense of carriage in a country without roads renders mining operations unremunerative to speculators. Tea is cultivated on the hills to a small extent, but has not yet had a fair trial.

In the *Burdwan* Division there are several coal mines worked by different Companies. The resources of the Coal Districts will, it is expected, be developed by the Singharun Valley line shortly to be opened, which runs through the heart of the collieries. These collieries are all in the fiscal jurisdiction of Beerbhoom. In Bancoorah the goor from sugar-cane is said to be very fine, and is exported to foreign parts from Calcutta. Cotton is also grown in certain parts of the District and much of it is sold in the Calcutta market, but the quality is very inferior. In Beerbhoom rice, silk, and sugar are the chief exports. Iron ore is found in considerable abundance in Pergunnah Noonée, at Mohammed Bazar, where iron foundries have been established by the Beerbhoom Iron Works Company. A marked development of the resources of the District may be expected when the railroad has been longer open.

In the *Patna* Division no mineral productions have been discovered, nor is tea cultivated anywhere, but cotton is pro-

duced to some extent in Shahabad. Indigo is grown in nearly all Districts, and saltpetre is exported chiefly from Tirlhoot and Sarun.

Coffee has been cultivated with great success at *Chittagong*, but the cultivation is by no means extensive. Tea is likely to prove a profitable speculation in that quarter. Cotton is grown in the hills, but requires personal skilled supervision to be successful.

There are no minerals in the *Cuttack* Division. For the spread of cotton cultivation the tributary mehals must be looked to ; the export of grain from the Province is increasing.

The only Districts in the *Dacca* Division where any mineral products have been found are Sylhet and Cachar. In Sylhet a lime quarry formerly leased for Rs. 220 has been re-let for Rs. 905.

In *Cachar* tea planting is making astonishing progress. Already 20 concerns are engaged in its cultivation and manufacture. The present season's yield is considered to be understated at 3,400 maunds, a quantity which represents three lakhs of Rupees, and next year it will not be under ten lakhs. The natural result of these operations has been to draw about two and a half lakhs of Rupees into the District annually, and nearly to quadruple the value of local labor. The laborers have become landholders, and will no longer labor on wages, and even if they did, would be quite unequal to the demand: immigration, therefore, is the great hope of the planters. To this time five thousand coolies have been imported and batches of hundreds are daily coming. They are generally up-country men starved out and refused by the Mauritius Agent. The mortality among them is stated to have been hitherto great, as must be expected among men who are generally rejected by the Colonial Agents as diseased and weak.

In the *Assam* Province tea is extensively grown, in Seebasgor and Lakhimpore especially ; here, also, it has had to struggle against the want of an adequate supply of labor. Limestone abounds in the Jynteah Hills which supply Bengal with nearly all the lime of superior quality which is used for building purposes.

In the *Arracan* province some lime is found. An experimental tea plantation has been commenced at Akyab, and, the Board understand, with success. Cotton is reported to have failed. The ryots, however, are anxious to obtain good seed, and the Commissioner proposes to grant waste lands for the purpose rent-free, but the rent is so inconsiderable an item in the

cost of the cultivation of cotton, that its remission would have little effect in promoting the cultivation; and on the whole, the Board do not think that this mode of encouraging it should be adopted.

A few places only in the *Soonderbuns* in the *Nuddea Division* are reported to be fit for the production of cotton.

In the *Rajshahye Division* indigo is extensively cultivated. Silk is manufactured in abundance which entails a large mulberry cultivation. There are soils in some Districts capable of producing cotton.

In the *Chota-Nagpore Division*, or South-Western Frontier Agency, the coal fields of *Kurhurbura* are being scientifically worked on account of the *East India Railway Company*. The *Bengal* and other Companies are greatly extending their mining operations in *Maunbhoom* near the line of the proposed extension from *Ranceegunge*. A portion of the *Palamow* coal-field has also been opened by the *Bengal Company*. The *Singbhoom* copper mines have been at a stand-still, owing to the failure of the first Company. Another Company have recently taken a lease of the mines.

In the Territory of *Darjeeling* tea planting has largely increased. The first consignment of 80 maunds has been sent to London this year. One hundred maunds of coffee of superior quality, made at *Kurseong*, sold in the country at Rs. 40 a maund. There had been to the date of Dr. Campbell's report in June, 21,865 acres granted for tea and coffee cultivation, of which 3,251 acres had been actually brought under cultivation. The number of tea plants which had gone out of the nursery was 4,303,000, and of coffee plants 91,800. In 1861 the manufacture of 42,600 lbs. of tea, and 20,000 lbs. of coffee, was expected. The number of laborers in the employment of six organized Companies, and of a number of individual planters, was 2,534. The capital involved up to the present time is about sixteen lakhs of Rupees, or £160,000.

Resumption of Fisheries—Under Regulation II of 1819, 713 suits were instituted of which 214 were decided in favour of Government, 128 against Government, 373 pending and 192 were settled. The whole jumina was Rs. 41,376-11. In the *Bhaugulpore Division* every case instituted was decided against Government, and in *Dinagpore* three suits brought in the Civil Court issued in a decree for damages against Government, amounting to Rs. 14,500.

Sale of Proprietary Right in Government Estates.—The following Table exhibits the result of the sales of the zemindaree right in Government estates (other than confiscated mehals) during the year :—

DISTRICTS.	Number of es- tates sold.	Sudder Jumma.	Gross rental.	Price realized.
Bhaugulpore ...	34	2,397 12 5	3,582 15 1	54,525 0 0
Monghyr...	50	3,126 0 8	4,194 1 4	63,207 0 0
Purneah ...	25	2,051 6 10	*951 14 2	7,125 0 0
Bancoorah ...	7	190 5 3	238 13 1	939 8 0
Beerbhoom ...	14	4,614 14 6	6,152 2 6	25,589 4 0
Burdwan...	8	122 13 6	187 2 6	1,027 7 5
Hoooghly ...	44	743 5 11	860 0 5	8,885 3 0
Midnapore ...	115	49,821 12 2	66,472 13 8	4,87,100 0 0
Chittagong ...	2	4,360 7 3	6,093 10 8	6,325 0 0
Balasore ...	2	11 1 9	13 14 5	814 0 0
Cuttack ...	1	3 6 1 $\frac{1}{2}$	5 0 0	63 0 0
Pooree ...	1	24 5 9	50 6 5 $\frac{1}{2}$	410 0 0
24-Pergunnahs ...	18	52,106 0 6	82,142 13 0	4,75,230 0 0
Patna ...	36	37,472 1 0	49,679 12 0	6,00,700 0 0
Sarun ...	3	1,764 15 9	1,875 1 3	19,395 0 0
Shahabad ...	43	7,002 13 0	9,210 2 0	33,968 0 0
Tirhoot ...	6	3,274 13 2	4,321 5 1	46,905 0 0
Rajshaye ..	1	26 8 11 $\frac{1}{2}$	34 5 0	285 0 0
Total ...	410	1,69,115 0 6 $\frac{1}{2}$	2,36,066 4 7 $\frac{1}{2}$	18,32,493 6 5

The price realised by the sale of the proprietary right in the confiscated estates of Koer Singh and other rebels, was up to the end of the year Rs. 10,28,728 for 258 estates. An average price

* This entry is evidently erroneous.

of $9\frac{1}{2}$ times the Sudder Jumma was realized on the *entire* Estates. There remain for sale 3,770 Estates, bearing at present a Sudder Jumma of Rs. 14,03,202-2-4 $\frac{1}{2}$.

Income-tax.—3,22,386 notices were served; the amount assessed was Rs. 35,26,358, of which Rs. 15,48,103 was collected. The charges were Rs. 2,48,041. The estimated amount of a year's yield is Rs. 60,59,010, of which Rs. 16,75,310 is from Calcutta and 4,10,000 from Tirhoot. The charges amount to something less than $6\frac{1}{2}$ per cent. on the aggregate collections. Out of 32,587 surcharges, of which the Board have knowledge, 1,627 only were successfully resisted. The provisions of Section 67, allowing compositions to be made, were very sparingly made use of, and in the great majority of cases in which compositions were made, the applicants were Europeans. Assessment by punchayet was rarely resorted to, the principal instance being that of the city of Dacca, which offered an aggregate assessment of Rs. 65,000. The returns made to the Assessors were generally pronounced inaccurate.

THE CALCUTTA POLICE.

1859-60 and 1860-61.

S. Wauchope, Esq., C. B., Police Commissioner, on 31st August 1861, submits to the Bengal Government a detailed statement of crime in Calcutta for the year ending 30th April, 1861, together with a statement of crime during that year as compared with 1859-60 :—

CASES DISPOSED OF.		Felonies.	Misdemeanors.	Total.
1859-60	Before the Commissioner of Police,	48	3,500	3,548
1860-61	... ..	10	2,298	2,308
1859-60	Before the Magistrate of the Southern Division,	1,661	2,036	3,697
1860-61	... ..	1,616	2,237	3,853
1859-60	Before the Magistrate of the Northern Division,	1,575	1,706	3,281
1860-61	... ..	1,432	2,052	3,484
1859-60	Before the Coroner,	5	...	5
1860-61	... ..	12	...	12
1859-60	Conservancy cases by the Commissioner of Police, ... ..	...	642	642
1860-61	... ..	...	631	631
1859-60		3,289	7,884	11,173
1860-61		3,070	7,218	10,288

Abstract Statement of Heinous Crimes ascertained to have been committed within the Town of Calcutta during the Official Year 1860-61, exhibiting the number of persons apprehended, the number committed to the Sessions for trial, and the number convicted or released by the Supreme Court and the Magistrates.

DESCRIPTION OF CRIMES.	Number of cases of all descriptions ascertained by the Police or otherwise.	Number of cases brought to trial.	Number of persons apprehended.	Released by the Commissioner without trial.	Committed to the Sessions.	HOW DISPOSED OF.			
						By Supreme Court.	By Magistrate.	Convicted.	Acquitted.
						Convicted.	Acquitted.		
Murder,	5	5	6	6	6	6	...	...	...
Manslaughter,	7	7	7	7	7	6	1	...	1
Cutting and Wounding,	5	5	5	...	4	3	1	...	...
Shooting with intent to Kill,	2	2	2	...	2	1	...	...	...
Administering Poison,	1	1	1	...	...	...	...	...	1
Violent Assault,	5	5	5	...	...	2	2	...	...
Arson,	4	4	5	...	4	...	1	...	4
Highway Robbery,	3	2	3	...	3	3	...	...	...

Burglary,	...	39	15	31	2	17	12	5	...	...	12
Thefts above 50 Rupees,	...	325	306	604	65	183	152	31	...	...	356
Thefts under 50 Rupees,	...	2,117	2,056	2,623	100	9	7	2	...	1,241	1,273
Thefts on the River,	...	175	163	289	...	15	9	3	3	110	164
Attempts at Theft,	...	25	4	4	...	...	...	...	...	...	4
Receiving Stolen Goods,	...	51	14	21	...	11	5	5	3	...	10
Possessing Stolen Goods,	...	217	201	247	2	...	...	...	...	122	123
Obtaining Goods under False Pretences,	...	65	58	71	2	9	7	2	...	13	47
Forgery, or uttering Forged Papers,	...	35	33	52	...	19	13	3	3	...	33
Counterfeiting Coin, or uttering Base Coin...	...	9	9	10	...	3	2	1	...	...	7
Embezzlement,	...	53	46	48	1	11	4	5	2	8	28
Kidnapping,	...	2	2	3	...	1	...	1	...	...	2
Lurking,	...	122	102	114	6	...	...	...	...	71	37
Perjury,	...	8	8	11	...	2	2	...	...	...	9
Offences against the Post Office Act,	...	9	9	9	...	2	2	...	...	4	3
Rape,	...	5	5	7	...	1	1	...	...	...	6
Sodomy,	...	1	1	1	...	...	...	...	...	...	1
Fraudulent appropriation of Property found,	...	2	2	2	...	1	1	...	...	...	1
Abortion,	...	3	3	6	...	2	2	...	...	...	4
Bigamy,	...	1	1	2	...	...	...	...	...	...	2
Poisoning Cattle,	...	1	1	3	...	2	2	...	...	...	1
Total,	...	3,297	3,070	4,192	178	315	242	62	11	1,570	2,129
Miscellaneous Cases,	...	.....	7,218	14,369	...	1	...	1	...	7,559	6,809
Grand Total,	...	3,297	10,288	18,561	178	316	242	63	11	9,129	8,938

The computed value of stolen property in 1859-60 was Rs. 1,58,807-11 and in 1860-61 was Rs. 1,22,133-13-10. The computed value of property recovered was in the former year Rs. 54,444-1-3, in the latter Rs. 40,315-11-5.

Of miscellaneous cases tried by the Magistrates of Calcutta in 1860-61 there were 7,218 number, 14,369 persons. Of these 7,559 were punished, 4,707 acquitted, 198 in recognizance for good conduct and 1,904 dismissed without trial.

Commissioner's Remarks.—Mr. Wauchope, in remarking on the 5 murder cases, cites a case of a most extraordinary nature, in which the prisoner, Gyaram Bagdee, though convicted, could not be hanged, owing to such being a physical impossibility. He cut his throat when first arrested, and the Medical attendants of the Hospital were obliged to insert a silver tube into the wind-pipe to enable him to breathe. He perfectly recovered in health, but this tube could not be removed, as through it only was he able to breathe; consequently, it was impossible to hang him with the tube, and had it been removed he would have been suffocated before he could have been hanged. He was therefore sentenced to transportation for life. In 1860-61 there were none of that class of murders which have almost always baffled the exertions of the Police, namely, that of prostitutes for the sake of their property. There was not a single instance of cutting and wounding by Sailors or others in drunken brawls in the streets or public-houses. Mr. Wauchope says of robberies on the Mydan by Europeans. "When I first took charge of the Calcutta Police, there were few Europeans or foreigners in Calcutta, except those either in or seeking for employment. There are now hundreds living by their arts, sometimes working on the Railway, and sometimes gaining a scanty livelihood by begging and thieving. So long as this class remains in Calcutta, so long must European Police be maintained in the mydan to prevent robbery. Experience shows that the Natives of Lower Bengal in the neighbourhood of Calcutta, do not, as a rule, make efficient Policemen. They have neither strength nor courage for this purpose. The Hindoos, who constitute about two-thirds of the Calcutta Police Force, are chiefly up-country men, and a very large proportion of the Mahomedans are from the Furreedpore District. There is hardly a city in the world, the streets of which, after a certain time of the night, are so wholly deserted as those of Calcutta. After midnight, except in some of the great thoroughfares, not a person is to be seen except the Police, and consequently if they do their duty, it is almost impossible for thieves and burglars to pass along with any amount of stolen property."

The following table shews the number of Fires :—

				1859-60.	1860-61.
Number of fires,...				41	25
<i>Houses destroyed.</i>					
Pucca, ...	...	...	...	28	7
Tiled, ...	...	...	...	263	285
Thatched, ...	...	...	...	1,060	25
Total, ...				1,351	317
Ships, ..				1	.....
Boats, Hay and Straw, ...				.....	11
The total number of bodies of Natives burnt or buried was—					
				<i>Hindoo.</i>	<i>Mahomedans.</i>
Small Pox, ...				34	17
Cholera, ...				4,424	2,613
Other Diseases, ...				6,256	2,451
From the Hospitals, ...				1,999	238
Total ...				12,713	5,319

A sum of no less than Rupees 14,342-0-8, in ninety-six Bank Notes, was made over to the Police by various persons who had found them in the streets. The owners of nearly the whole were found, and in each case the finders were rewarded.

THE BENGAL SALT DEPARTMENT.

1860-61.

The Sales of Salt were as follows :—

SALES.	1859-60.			1860-61.		
	Mds.	S.	C.	Mds.	S.	C.
Government Salt, full taxed ...	46,37,007	20	0	16,07,257	28	0
Ditto at reduced prices	9,95,609	14	15½	9,68,170	0	5½
Private Salt, Sea imported ...	29,37,708	28	12	37,30,316	8	14½
Ditto, Excised ..	44,400	0	0	27,300	0	0
Total ...	86,14,725	23	11½	63,33,043	37	4

These sales do not indicate the consumption of salt in each year. Adding to the quantity remaining uncleared at the beginning of the year the quantity sold, and deducting from this

the quantity uncleared at the end of the year the consumption in the years 1859-60 and 1860-61 respectively, may be stated to have been Mds. 78,98,968 in the former, against Mds. 73,52,428 in the latter, being a difference of only Mds. 5,46,540 instead of Mds. 22,83,581, as the comparison of sales would at first sight appear to indicate. The great bulk of the decrease is ascribed to the removal of the Allahabad Preventive Line, and the differential Duty of four annas in favor of Salt coming from that direction, which has the effect of bringing it more into use in localities so situated.

During the year there was an indisposition to purchase the salt of the Government Agencies, owing to the fact that the prejudice against purer foreign salt among Hindoos had been removed. Liverpool Salt is sold freely throughout the Districts of Bengal in places in which, before the present year, no Salt of the kind had ever been seen, and in which its exposure for sale would hardly have been tolerated by the ignorant villagers. This change has been brought about simply by the great difference in the price of the two kinds of Salt, against which, with all the predilection of the natives in its favor, the indigenous Salt of the country has not been able to maintain its position. The imports of Salt have been on a scale altogether unprecedented, and the prices correspondingly low. Liverpool Salt has been selling as low as Rupees 65 per 100 Mds., and at the present time does not command a higher price than Rupees 75, while the fixed price of Government Salt at all the Depôts is Rupees 83 per 100 Mds. This change is viewed with satisfaction because it gives the people purer and cheaper salt with no decrease of revenue.

The Stock of Salt at the close of 1860-61 was—

	<i>Maunds.</i>	<i>S. C.</i>
In larger Government Depôts of Bengal and Orissa	68,87,567	39 7
In smaller Government Store-houses in Bengal (Estimated)	30,000	0 0
Sea Imported private Salt afloat and on shore	28,72,037	31 1
In Excise Golahs (home-made Salt)	1,485	0 0
	97,91,090	30 8

The supply of Salt to the consumer was constant and abundant, at prices much below previous years; and at the end of the year, the reserved stock was considerably larger than at its commencement, giving assurance of a continuance of the same favorable circumstances in the year to come. The scrambling for

favorite Salts and gambling speculations, for obviating which so many devices have in the last few years been resorted to in vain, entirely ceased.

Produce of the Agencies.—The quantity actually produced in, each Agency is exhibited in the following Table :—

			Taidad.	Out-turn.		
			Mds.	Mds.	S.	C.
Hidgelee	...	...	9,56,700	8,90,423	20	0
Tumlook	...	...	10,00,000	8,45,140	13	0
Chittagong	...	...	6,00,000	4,28,381	26	15
Balasore	...	...	8,00,000	7,04,929	20	0
Cuttack	...	...	5,00,000	3,39,878	0	0
Pooree	...	{P.	3,59,000	3,54,966	35	0
		{K.	10,50,000	12,50,822	10	0
Total	...		52,65,700	48,14,542	4	15

This shows a deficiency of Mds. 4,51,157. The entire out-turn of the season under report shows, however, favorably as compared with the preceding year's manufacture, which it exceeded by Mds. 3,32,197.

The Salt Laws.—In 1860-61 there were confiscated 2,693 maunds against 4,031. There were 1,687 cases of infraction in 1859-60 against 1,448 in 1860-61; of the latter 1,327 were convicted. Salt was manufactured under Excise Licenses in three localities, in Saugor Island, and on Lot 122 of the Sunderbuns, under the Rules of 1854, and at the Naraynpore Works on the English principle. The quantity made was 29,954½ maunds. The system is condemned as unsuccessful. On the 20th March last, the Customs Duty on imported private Salt and the Excise Tax on the home-made article as well as on all Salt sold by Government, was raised from 3 Rupees a Md. to 3 Rupees 4 annas, the maximum tariff rate of Act XIV. of 1836. About the same time, the Duty on Salt in the North West was raised to 3 Rupees, and the Allahabad Customs' Line abolished. The additional 4 annas however was not added to the selling price of Pooree Kurkutch (2-4 per Md.) because it was obviously absurd to offer it for sale at such a high rate when Madras Kurkutch was selling in the adjoining District of Ganjam at 1-2 a Md. Most of the topics proposed for consideration in Mr. Plowden's Salt Report which had not been formerly disposed of, were reported upon by the Board in the past year.

Comparative Statement of Salt Imported by Sea from different Countries in 1859-60 and 1860-61.

1st Oct. to 30th Sept.	1859-60.			1860-61.			Increase.			Decrease.		
	Mds.	S.	C.	Mds.	S.	C.	Mds.	S.	C.	Mds.	S.	C.
Great Britain	17,63,299	16	5	42,24,035	37	9½	24,60,736	21	4½	.....	.....	.....
Americas, North	28,596	37	12	27,154	6	11	.....	.....	.....	1,442	31	1
France	40,926	23	15½	86,195	37	5½	45,269	13	6	.....	.....	.....
Sweden	21,87½	38	0	.....	.....	.....	.....	.....	.....	21,874	38	0
Mauritius	.....	.....	.....	2,994	17	12	2,994	17	12	.....	.....	.....
Red and Arabian Seas	5,61,099	32	6½	6,05,187	13	3	44,087	20	12½	.....	.....	.....
Bombay	3,93,478	30	2½	8,65,453	1	0	4,71,974	10	13½	.....	.....	.....
Ceylon	.....	.....	.....	40,838	13	5	40,838	13	5	.....	.....	.....
Laccadive Islands	50	0	0	.....	.....	.....	.....	.....	.....	50	0	0
Madras	3,65,286	5	6	1,87,237	9	15	.....	.....	.....	1,78,048	35	7
China	17,535	0	0	10,871	32	0	.....	.....	.....	6,663	8	0
Total Mds.	31,92,147	23	15½	60,49,963	8	13½	30,65,895	17	5½	2,08,079	32	8
				Deduct Decrease	.....	.....	2,08,079	32	8			
				Net Increase	.....	.....	28,57,815	24	13½			

THUGGY AND DACOITY IN BOMBAY.

1860.

ON 9th August 1861, W. M. Hearn, Esq., Assistant General Superintendent, Belgaum, submits to the Bombay Government the Annual Report of the operations for the suppression of Thuggy and Dacoity in the Bombay territories for the year 1860. The following shows the number of Dacoities reported during the year under review contrasted with that of previous years :—

COLLECTORATES.	1860.	1859.	1858.	1857.	1856.
Ahmedabad ...	4	4	7	...	15
Kaira ...	...	...	...	...	...
Broach ...	...	...	...	...	2
Surat ...	5	1	...	...	4
Tanna, including Sub-Collectorate of Colaba ...	5	4	4	10	4
Ahmednuggur, including Sub-Collectorate of Nasick ...	5	6	7	19	...
Khandeish ...	4	4	14	15	7
Poona ...	3	1	2	14	2
Rutnagherry ...	...	1	...	1	...
Sholapore ...	2	1	1	2	3
Akulkote State ...	...	Not known	Not known	Not known	Not known
Dharwar ...	1	...	7	12	4
Belgaum ...	...	1	...	...	1
Jagheer States, Southern Maratha Country ...	...	1	4	2	...
Kolapore State ...	...	...	1	...	...
Sattara ...	1	...	...	2	9
Jagheer States, Sattara ...	2	Not known	Not known	Not known	Not known
Sawunt Waree ...	...	...	...	...	1
Total number of cases ...	32	24	47	77	52
Total number of cases detected ...	20	18	28	49	24
Percentage of detections to the actual number of dacoities ...	62	75	59	63	46
Total amount of property stolen	Rs. 27,197	Rs. 41,933	Rs. 19,794	Rs. 25,560	Rs. 46,261
Total amount recovered ...	5,951	333	4,448	1,761	3,415
Percentage of recovery to the total amount stolen	21.881	794	22.471	6.889	7.392

The number of gang robberies, compared with that of the preceding year, increased twenty-five per cent., while there is a decrease of one-third in the amount stolen, and an increase of twenty-one per cent. in the amount recovered. Two men were killed during the year and eight wounded; 124 were arrested and 51 convicted, of whom 28 belonged to the professional classes. The following shews the results of previous years :—

YEARS.	No. of Men arrested.	No. of Offenders convicted.
1859	82	52
1858	297	184
1857	637	298
1856	361	74

Of burglaries, almost entirely committed by the professional classes in Dharwar, Belgaum, Sholapore, the Jagheer States and Akulkote Jagheer, there were 219 cases in which 22 were detected. Of Dhatoora Thuggy in all the collectorates there were 6 cases and 1 detected. The arrests and receipts from other quarters during the year amount in all to eighteen Dacoits. Five of these were admitted to the grade of approver; one was sent up for trial and sentenced to transportation by the Political Agent's Court; six were released, and two were made over to the local authorities; one escaped from a Police guard, and three were to be made approvers on the completion of the investigation. Of the eighteen, thirteen were Korwee Kaikarees, and five Kaikadees of Sholapore. During the year information was received and recorded against two hundred and four men.

The following table shows the classes and approximate number of Dacoits of which the Agency had information, and who continued to infest the districts of the Bombay Presidency and the neighbouring ones of Hyderabad and Madras :—

			<i>Registered.</i>	<i>Unregistered.</i>
Ran Kaikadees	...	...	65	185
Kaikadees of Sholapore	...	...	29	276
Korwee Kaikadees	...	...	74	98
Morekar Korwees	...	...	32	198
Wuddurs	...	...	5	46
Lumbanees	...	...	10	5
Mhangs	...	...	160	199
Ramoosees of Poona	...	...	10	48
Kolhatees of Khandeish	...	...	46	...
Jutts...	...	...	...	21
Bedurs	...	...	...	31
Other castes...	...	...	...	128
Total			431	1,235

In connection with this Agency there was established an Industrial School, in which the approvers and their children are instructed in the manufacture of cloth, tents, carpets, tape, and rope, &c. Although the institution was established only a little more than a year ago, very creditable progress had been made. The lying, thievish, and indolent tendencies of the Kaikadee youths, who form the majority of the hands, had to be combatted with; and though not deficient in capacity, they showed a total unwillingness to learn at first. In these respects they contrasted most unfavourably with the offspring of the Thug approvers.

The Resolution of Government is—"the Report is on the whole satisfactory. The Commissioners of Police should issue injunctions to secure the cordial co-operation of their subordinates with the Thuggy Department. Burglaries have, it seems, increased, either owing to more scrutiny or to the crime paying better."

SURVEY OPERATIONS IN THE LOWER PROVINCES.

From 1st October 1859 to 30th September 1860.

ON 1st March 1861, H. L. Dampier, Esq., Secretary to the Board of Revenue, forwards to the Government of Bengal Statements and copies of Reports relative to the Survey Operations of the year which expired on the 30th September 1860.

The 1st Division, *Professional*, completed the topographical delineation of that part of Cooch Behar, 597½ square miles, which was left unfinished in 1858-59, at a cost of Rupees 3,624-8-0, averaging Rs. 6-1-1 per square mile. In addition:

this Division made a Mouzahwar Survey of 939 square miles in Dinagepore, at a cost of Rs. 28,109-13-0, averaging Rs. 29-14-10 per square mile. The cost of the aggregate area of 1,536½ square miles surveyed in Cooch Behar and Dinagepore amounted to Rs. 32,025-5-0, and the average rate per square mile to Rs. 20-13-5. The average cost of last year's operations was Rs. 19-6-2 only. The total cost of Division amounted to Rs. 33,748-7-0, a saving of Rs. 3,775-9-0 being thus effected from the maximum grant for the year. *Non-Professional.*—The demarcations had been completed the previous year. The progress of the registry was favourable. The aggregate expenditure of the year amounted to Rs. 38,811-5-6½.

The 2nd Division, Professional, under Captain Sherwill, accomplished an area of 873½ square miles in Dinagepore, at a cost of Rs. 37,010-2-10, being at the rate of Rs. 42-5-11 per square mile (exclusive of contingent charges), or Rs. 10-3-8 below the rate of the previous season. The area though considerably in excess of that of last year (662 square miles), is still comparatively small. This result is accounted for by the small size of the villages, and the sickness produced by the unhealthy climate of the District to which this party was so long exposed. The total expenditure amounted to Rs. 38,732-9-0, exceeding the grant by Rs. 1,208-9-0. *Non-Professional.*—There were demarcated during the season between 600 and 700 square miles in the new District of Tipperah. The Collector's lists of Mehals in this District are stated to be so well prepared, that little difficulty is expected in the compilation of the Registers. The state of the file of boundary disputes is considered unsatisfactory by the Superintendent. The Registers of Bancoorah were completed and made over to the Collector. The expense incurred in this Division, including that of the branch office at Burdwan, amounted to Rs. 30,355-13-2.

The 3rd Division, Professional, under Mr. N. T. Davey, surveyed 1,062½ square miles in Dacca at a cost of Rs. 31,790-11-7, giving an average rate of Rs. 29-14-10 per square mile, or Rs. 11-10-8 less than in the previous season. The average size of the villages was less than half a square mile, and a larger area would probably have been obtained but for the obliteration of the field marks in a country so subject to annual inundation. The Dacca District as far as the Ganges was thus completed, the small area beyond that river being taken up by the 4th Division. The saving amounts to Rs. 4,147-3-3. *Non-Professional.*—The demarcations which lay in Sylhet

were found to be so intricate that the Board were constrained to allow a departure, on this occasion, from the rule which requires all the interior work to be completed before the thakbusts are made over to the Surveyor. No less than 84,648 Mehalwar chucks had to be demarcated, and 3 villages measured by khureh were found to contain no less than 1,115 plots. But so well was the work brought up, that in only 478 of the total number of 2,126 hulkahs containing 4,280 villages, taken up in the season, were the external demarcations left to be completed at its close. The field prepared for the Surveyor is estimated to contain 1,492 square miles together with 16 mouzahwar and 14 mehalwar English registers, leaving 10 mouzahwar and 12 mehalwar to be finished.

The 4th Division, Professional, under Captain Gastrell completed an area of 1,477½ square miles in the three Districts of Dacca, Furreedpore and Backergunge, at a cost of Rupees 35,867-11-1 or Rupees 24-4-3 per square mile, being Rupees 1-12-7 less than in the previous season. If the sum disbursed on contingencies be taken into account, the total expenditure will amount to Rupees 38,672-3-1, or Rupees 1,148-3-1 beyond the annual grant. *Non-Professional*.—The demarcation of the remaining portion of Backergunge was completed during the season, except two churs which were under water. The estimated area is 2,000 square miles, containing 2,251 villages with 37,147 mehalwar chucks, which must be considered a very favorable result in a country intersected by tidal creeks. The boundary dispute and appeal files were in a satisfactory state, but the number of other cases undisposed of was large. Forty-three Jessore and 16 Pubna and Furreedpore registers were completed during the year. The expense incurred during the year in this branch amounted to Rupees 81,975-4-6.

Arracan Division.—Mr. O'Donel succeeded in the course of a season of only four months' duration, notwithstanding the difficulties presented by the mountainous nature of the ground, in accomplishing an area of 2,370 square miles, at a cost of Rupees 34,340-13-2, yielding a rate per square mile of Rupees 14-7-10 or Rupees 5-1-8 below that of the previous season, when an area, less by nearly 866 square miles, was surveyed. Of the sum of Rupees 8,420 sanctioned by Government in September, for presents to the hill Chiefs and other purposes, Rupees 5,343-5-4 was disbursed, the contingent expenses incurred on the keep of elephants and cutting jungle amounted to Rupees 6,927-5 more. If these amounts be debited to the survey, the total expense will aggregate Rs. 46,611-7-6, producing an average of Rupees 19-10-7 per square mile. In addition

to the above sums, Rupees 1,488-12-10 was expended for demarcation purposes. The survey was, for the most part, topographical. In the vicinity of Akyab, where cultivation occurs, the native measurements bore the test of the professional survey better than could have been expected. In only four villages did the difference exceed 10 per cent.

In the Chota Nagpore Division—Captain Thompson triangulated an area of 1,259 square miles prior to survey, of which 943 square miles was surveyed mouzahwar. The operations lay on the north of the Grand Trunk Road, adjoining the Behar Province. A special survey of the road for 136 miles and of the cantonments and Station of Hazareebaugh was also made on a large scale. The expense aggregated Rs. 37,677-1-11 or Rs. 153-1-11 in excess of the annual maximum grant, the difference being met out of the general savings. The rate per square mile on this amount is Rs. 39-15-2, or if the further sum of Rs. 1,817-7 expended on contingencies be taken into account, Rs. 41-14 per square mile. The area surveyed is not so large as was expected, owing to the impediments to progress caused by working through heavy jungle. In this Division the demarcations are conducted under the same superintendence as the survey. The small establishment of 2 Peshkars and 12 Ameens entertained for this purpose completed the Khuruckdea Elaka and the Burhee Sub-division, comprising in all 2,477 villages, as well as 790 villages of Pergunnah Palamow. The area is estimated at 2,500 square miles.

Abstract.—The following is an Abstract of the results of the past two years. The contingent expenses are included in the cost of the both the professional and non-professional branches :

	Years.	PROFESSIONAL.		
		Area in square miles.	Cost.	Rate per square mile.
Total,	1858-59, ...	6132·44	Rs. 1,98,119	Rs. 32 4 11
	1859-60, ...	8263·05	„ 2,15,656	„ 26 1 7
	Difference, ...	+2130·61	+ 17,537	— 6 3 4

	Years.	NON-PROFESSIONAL.		
		Area in square miles.	Cost.	Rate per square mile.
Total,	1858-59, ...	8,496	Rs. 2,34,127	Rs. 27 8 11
	1859-60, ...	9,012	„ 2,55,622	„ 28 5 10
	Difference, ...	+ 516	+ 21,495	+ 0 12 11

The savings of the professional branch, after defraying all charges, amounted to Rs. 8,642-10-0. In the non-professional Department, the sum of Rs. 14,623-12-10 remained unexpended. The following shews what Districts of the Regulation Provinces have not yet been surveyed professionally. Hooghly also remains for re-survey:—

Districts.	Demarcation.	Professional Survey.
Backergunge,	Completed in 1859-60,	{ Expected to be completed in 1861-62.
Dinapore, ...	Completed in 1858-59,	{ Expected to be completed in 1860-61.
Tipperah, ...	{ Under demarcation; will probably be finished in 1861-62, }	Not commenced; will probably be completed in 1862-63.
Sylhet, ...	{ Under demarcation; will probably be finished in 1862-63, }	Commenced in 1860-61; will probably be completed in 1863-64.
Bullooah, ...	{ Not commenced—a strong party may do it in one year, ... }	Not commenced.

Jynteah and Cachar, which were surveyed more than 20 years ago, will fall within the range of operations of the Sylhet party.

General Statement.—The following Statement gives, at one view, all that was accomplished by each of the six establishments, and the usual results, compared with those of the preceding season :—

Divisions.	Superintending Officers.	Number of Traverse circuits.	Area surveyed in square miles.	Cost.			Average rate per square mile.			Average rate per village circuit.		
				Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
1st,	... Mr. J. J. Pemberton (the late,) ...	1048 & 33 blocks,	1536.59	32,025	5	0	20	13	5	29	10	0
2nd,	... Captain J. L. Sherwill,	... 1014	873.44	37,010	2	10	42	5	11	36	7	11
3rd,	... Mr. N. T. Davey,	... 1914	1062.24	31,790	11	7	29	14	10	16	9	8
4th,	... Captain J. E. Gastrell,	... 1785	1477.45	35,867	1	1	24	4	3	20	1	5
5th,	... Mr. J. H. O'Donel,	... 96	2370.19	34,340	13	2	14	7	10	...	...	...
6th,	... Captain G. H. Thompson,	... 1363	943.14	37,677	1	11	39	15	2	27	10	3
1859-60	General Results,	... 7203 & 33 blocks,	8263.05	2,08,711	3	7	25	4	0	28	12	4
1858-59	Ditto,	... 5824 & 37 "	6132.44	1,88,852	10	9	30	12	8	32	6	9
	Differences,	... +1379—4 "	+2130.61	+19,858	8	10	—5	8	8	—3	10	5

These differences are much in favor of the season under review ; an excess of 2,130 square miles has been achieved in area, at a slightly additional outlay, the effect of which has been to reduce the mileage rate by Rs. 5-8 annas, bringing the general average down to 25-4-0.

The Lieutenant Governor's Opinion.—The Lieutenant Governor readily acknowledges the services which the professional Officers generally rendered in connection with the Revenue Survey, and he is glad to avail himself of this opportunity of recognizing in particular the very able manner in which Major Thuillier has for a long period conducted the important supervision entrusted to him.

REPORT ON INDIAN ADMINISTRATION—MILITARY.

1861-62.

Regimental Workshops.—To meet the evil of idleness in the European army, Government sanctioned the establishment of Regimental Workshops on the recommendation of the Commander-in-Chief. The trades proposed to be practised are, the Painter, Printer, Blacksmith, Bricklayer, Carpenter, Joiner, Weaver, Shoe-maker, Book-binder, Gardener, Tent-maker, Watch-maker, Decorator, and any other that may hereafter be considered advantageous. The primary cost of establishment and supply of implements in each Corps is estimated at Rupees 1,025 which can be advanced from Regimental Canteens. The expense of conveying the tools required from Calcutta or elsewhere will be borne by Government. The children of soldiers will be instructed. The profits accruing from the exercise of his craft are to be given to the workman, every inducement being held out to him to invest the money in the Savings Bank.

Amalgamation of the Artillery Corps.—The Bengal, Madras, and Bombay Regiments of Artillery were formed into the 2nd, 3rd, 4th, and 5th Royal Horse Brigades, and the 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, and 25th Brigades of Royal Artillery. The Batteries of the New Royal Artillery Brigades were composed of the Soldiers of the existing Troops and Companies of the Bengal, Madras, and Bombay Artillery who volunteered for the Royal Artillery. The Artillerymen who elected for local service were formed into separate Indian Batteries.

The Royal Horse Brigades were formed ;

The 2nd Brigade of 7 Troops Bengal Horse Artillery.

„ 3rd „ of 4 Ditto Madras ditto.

„ 4th „ of 4 Ditto Bombay ditto.

„ 5th „ of 6 Ditto Bengal ditto.

The Brigades of Royal Artillery were formed ;

The 16th Brigade of 5 Companies Bengal Artillery.

„ 17th „ of 6 Ditto Madras ditto.

„ 18th „ of 6 Ditto Bombay ditto.

„ 19th „ of 5 Ditto Bengal ditto.

„ 20th „ of 5 Ditto Madras ditto.

„ 21st „ of 6 Ditto Bombay ditto.

„ 22nd „ of 5 Ditto Bengal ditto.

„ 23rd „ of 5 Ditto Madras ditto.

„ 24th „ of 5 Ditto Bengal ditto.

„ 25th „ of 4 Ditto Bengal ditto.

Additional Field and Garrison Batteries were to be formed as soon as Artillerymen were available, and to be attached to the several Brigades in such proportions as might be determined.

Native Cavalry.—In consequence of the substitution of Police for Civil Guards and other non-military duties, Government resolved that the establishment of Native Cavalry Corps in the Bengal Army should be reduced. Each Regiment is hereafter to consist of 420 Sowars divided into six Troops with a due proportion of Commissioned and Non-Commissioned Officers, making a total of 499 Natives of all ranks. At the close of last year there were altogether 41 Regiments of Native Cavalry maintained in the Bengal Presidency, of which 12 were under the orders of the Government of India, and 29 under the orders of the Commander-in-Chief. Of those Corps retained under the Government of India, the 3rd Regiment Central India Horse was disbanded, and Meade's Horse was incorporated with the other Regiments of Central India Horse. The Cavalry of the Guide Corps and the five Regiments of Punjab Cavalry remain as heretofore under the Government of the Punjab, but they were brought on the Rolls of the Bengal Army, retaining their present designation. Of the 29 Regiments of Native Cavalry under the Commander-in-Chief, 12 bear the name and numbers of the old Cavalry Regiments of the Bengal Army, although a considerable portion of them have been almost entirely raised anew since 1857. The remaining 17 Regiments were raised during or since the Mutinies, while one Regiment, "Fane's Horse," was formed specially for service in China.

Of these 29 Regiments, the 10 Regiments named below were disbanded.

3rd Irregular Cavalry.	Ramgurn Cavalry.
9th ditto.	Alexander's Horse.
12th ditto.	Benares ditto.
16th ditto.	1st Mahratta ditto.
3rd Sikh Cavalry.	Lind's Pathan Cavalry.

and the remaining Corps were numbered—

1st Bengal Cavalry, late	1st Irregular Cavalry.
2nd ditto	2nd ditto.
3rd ditto	4th ditto.
4th ditto	6th ditto.
5th ditto	7th ditto.
6th ditto	8th ditto.
7th ditto	17th ditto.
8th ditto	18th ditto.
9th ditto	1st Hodson's Horse.
10th ditto	2nd ditto.
11th ditto	1st Sikh Cavalry.
12th ditto	2nd ditto.
13th ditto	4th ditto.
14th ditto	Murray's Jât Horse.
15th ditto	Curton's Mooltanee Horse.
16th ditto	Rohilcund Horse.
17th ditto	Robarts' Horse.
18th ditto	2nd Mahratta Horse.
19th ditto	Fane's Horse.

The Regiments not directly under the Commander-in-Chief are

Cavalry of Guides.	5th Punjaub Cavalry.
1st Punjaub Cavalry.	1st Central India Horse.
2nd ditto.	2nd ditto.
3rd ditto.	Deolee Horse.
4th ditto.	Erinpoorah ditto.

To abolish the numerous Treasure chests at each station, the system of *paying by cheques* was adopted. The number of *Dooley Bearers* in cantonments was reduced from 5 to 4 for each dooley. The Moulmein Volunteer Rifle Corps ceased to exist.

Improvements in Field Ordnance.—Further experiments to improve the Field Ordnance now in use were conducted by the Superintendent of the Gun Foundry at Cossipore, with a 12-pounder Rifled Brass Gun and elongated projectiles. Detailed information was called for from the Ordnance authorities in England, as to the measures that have been tried there for converting the existing cast iron Ordnance into rifled pieces,

with a view to a portion of the large stock of iron Ordnance available in this country being turned to profitable account.

Reductions in Pegu, in establishments, were carried out to the extent of Rs. 10,82,040-3-4 annual savings, in consequence of the reduction in Military strength last year.

Ice Machines.—To ensure a sufficient supply of ice for the use of the European Troops in hospital and barracks, Government authorized, as an experimental measure, Ice Machines to be procured for the stations of Allahabad, Lucknow, and Meean Meer. If the scheme prove successful, it is proposed to set up Ice Machines at all the principal Military Stations, and to sell the surplus of the manufacture, after the Troops shall have been served, to the community generally.

Revised Establishments for Cavalry and Infantry.—The following revised establishments for Regiments of British Cavalry and Infantry serving in India were fixed by orders from the Horse Guards.

			Field Officers.	Captains.	Lieutenants.	Cornets or Ensigns.	Staff.	Sergeants exclusive of School-Masters.	Farriers.	Trumpeters or Drummers.	Corporals.	Privates.	
Cavalry	{	8 Service Troops	...	3	8	8	8	8	40	8	9	32	496
		1 Depôt	...	...	1	1	1	...	9	...	4	8	49
	Total		...	3	9	9	9	8	49	8	13	40	545
Infantry	{	10 Service Companies	...	3	10	12	8	7	47	...	21	40	810
		2 Depôts	...	...	2	2	2	...	10	...	4	10	90
	Total		...	3	12	14	10	7	57	...	25	50	900

Quarter Master General, H. M.'s Forces.—The appointment of Quarter Master General of Her Majesty's Forces in India, having become vacant by the promotion of Colonel G. Congreve, C. B., was abolished. The appointments in the Department of the Quarter Master General of the Army in Bengal are to be open to Officers alike of the Line and Indian Armies.

Officers and General Service.—With a view to obliterate, as far and as soon as possible, the distinctions between Officers of Her Majesty's British and Indian Services, and to afford to such Officers of the Indian Army as may prefer the conditions of general service, an opportunity of obtaining a position in the British Army, it was decided that for every vacancy caused in a Line Regiment by the transfer of an Officer to the Staff Corps constituted by the Royal Warrant of the 16th January 1861, a transfer of an Officer of corresponding rank in Her Majesty's Indian Army, who may be disposed to accept of such transfer, shall be made to the Regiment in which the vacancy takes place.

A Sanitarium at Rhotas was proposed as an experimental measure. A sum of Rs. 63 per mensem was sanctioned for the *Outram Institute at Bareilly*. A monthly saving of Rs. 475-12 was effected in the non-combatant establishments of the Punjab Irregular Force.

The Stud Department.—During the official year 1859-60 on a gross expenditure of Rupees 11,47,193, there were receipts and recoveries amounting to Rupees 2,48,765 from sales of horses and produce, and from profit and loss items, leaving a balance of Rupees 8,98,428, which represents the value of 1,808 horses transferred to the Army, at the average low cost of Rupees 496 for each horse, being Rupees 178 below the average value of former years; Rupees 135 below the average cost of Cape Horses; and Rupees 409 below that of Australian Horses imported, exclusive of the cost of Cape Agency, and Dépôt expenses at Calcutta. This satisfactory result is attributable to the efficiency with which the Stud Department was managed by the Superintendent, Colonel Dickey. In order to improve the Stud Breed as much as possible, arrangements were made for obtaining some thorough-bred English Stallions from England, and a few Turcoman brood mares to be tried as an experiment.

The Bullock Train Establishment in Bengal was placed on the same footing as last year, from the 15th October 1861 until the 1st April 1862, for the conveyance of Troops from and to the Presidency during the cold season.

Project for improving Artillery Practice.—As an encouragement to the Soldier to attain proficiency in Artillery Practice, a

system of prizes for good firing among the Soldiers of the Artillery in this Country was introduced. The following are the prizes to be awarded. *1st Prize.*—To the best shot in the Brigade; a badge of crossed guns and crown worked in gold, entitling the wearer to extra pay of 2*d.* a day. *2nd.*—To the best shot in each Battery; a badge of crossed guns worked in gold, entitling the wearer to extra pay of 2*d.* a day. *3rd.*—To the six next best shots in each Battery; a badge of crossed guns worked in worsted, entitling the wearer to extra pay of 1*d.* a day. The badges to be worked on red cloth, and worn on the left arm above the cuff. No man shall receive these rewards who shall not have attained a certain number of points to be fixed as a minimum. The prize holders must also be acquainted with the construction of the gun and the rules affecting the direction of the shot, as well as the principle of the fuze and the mode of preparing it. To entitle a Soldier to the higher reward of 2*d.* a day, he must also be able to equip a gun and waggon in marching order, and pack ammunition.

As a further inducement to all ranks to vie with each other a supplementary prize of cross guns and crown worked in gold but unaccompanied by any pecuniary allowance, will be worn on the right arm by the Sergeants of the best shooting Battery of every Brigade. When a Sergeant who is the holder of this supplementary prize leaves his Battery, he is to resign it.

THE BUSTAR AND KHARONDE DEPENDENCIES OF THE RAEPORE DISTRICT.

1861.

Indian Records, No. XXX.

BUSTAR.

ON 27th May 1856 Lieutenant-Colonel Elliot, Deputy Commissioner, forwards to G. A. C. Plowden, Esq., Commissioner of Nagpore, his proceedings in the affairs of the Rajah of Bustar, together with authentic information regarding the dependency.

Boundaries and Divisions.—Bustar, situated to the south-east of the Chutteesgurh district, is comprised between the 17° 40' and 20° 20' parallels of north latitude, and 80° and 82° 40' degrees of east longitude, and is bounded on the north, by Kakeir, the Dhumterry Tehsildary of Chutteesgurh, and the Bendry Nowagurh zemindary attached to Sumbulpore; on the east, by the Jeypore dependency attached to the Northern Cir-

cars; on the south, by the Godavery river; and on the west, by Wyragurh in the Chandah district. Its extreme length from north to south may be stated at 235 miles, and its breadth from east to west at 182 miles. The dependency formerly consisted of 57 khalsa sub-divisions (48 Gurhs and 9 talooks) and 13 zemindaries; in all 70 sub-divisions. Of these, seven Gurhs are now included in the Jeypore dependency, three belong to Nagpore, 7 were given in *Mokassa* to zemindars, some passed over to Hyderabad. There now remain 36 sub-divisions, (27 Gurhs and 9 talooks included under Jugdulpore, within the limits of which are several villages forming separate charges) and 9 zemindaries, besides the five villages of Shahwah. The general surface of the country is undulating. The soil is a rich alluvial bed of some depth overlying a stratum of clay slate, of a light, friable, and exceedingly fertile nature, yet the amount of cultivation does not bear the proportion of one to fifteen of surface, though it would be difficult to point out any country possessing more natural advantages.

Towns.—The former capital, Bustar, was abandoned. Jugdulpore, the chief town now, is on the Indrawutty 200 miles S. S. E. from Raepore. It contains 400 houses of a wretched kind. Such being the condition of the town chosen as the residence of the Rajah, it is not surprising to find that the names of no more than 30 or 40 villages are mentioned as containing from 100 to 200 houses each of the same construction.

Rivers and Hills.—The principal river is the Indrawutty which rises in the Ghats of Thoamool in the N. E. and flows S. W. through the centre of the country for 300 miles to Bhopalputnam, where it joins the Godavery. The Kotree, Sunkanee, and Damkanee, and Kholop are its chief tributaries. There are two separate ranges of hills, one branching off in a spur from the eastern ghats in the Jeypore dependency runs south-west, terminating in the Sookma zemindary of Bustar, about 50 miles south from Jugdulpore; the other range enters the dependency from Chandah and, crossing the Indrawutty, runs due south-east through the Bhopalputnam zemindary of Bustar, and south of the Dunkanee river, until it reaches the Godavery. The former of these is locally known as the "Toolsee Dongree," and the latter as the "Beila Deela" hills, which latter, as seen from a distance, appear to be a very considerable range. Besides these, a large range is described as traversing the Narainpore talooks from east to west, to the north of the Indrawutty. It is said that on the Beila Deela hills, a race of wild people live who have no intercourse with the people of the plains: they are ge-

nerally naked, the women wearing aprons of leaves in front. They run away on the approach of any one not belonging to themselves, and pay tribute in kind to the Rajah. They pay, however, in kind, of the produce of their village. This is collected once a year by a peon, who beats a tomtom outside the village, and, after he has hid himself, the people bring out whatever they have to give, and deposit it on an appointed spot. They live on roots, grain raised in the jungles, and fruits, and are called Madians.

The *population* is fixed at 80,000, chiefly Gonds in two tribes—Moreas in the north and Mareas in the south and west. The language of the Moreas is a mixture of several, the principal of which appear to be Hindi, Telugu, Canarese, and Mahratta. They eat indiscriminately all kinds of grain and the flesh of most animals, excepting the buffaloe, fox, dog, cat, and snakes, though only within their own caste. They worship the earth and hills of which no representation is made. The peculiar deity of the people of Bustar is called indiscriminately Bhimfen, Bhima or Bhimdeo, the representation of it (apparently signifying god and goddess) being made by the insertion in the ground of two pieces of wood, 3 to 4 feet in length, one a little shorter than the other. The worship of this god is regularly performed once a year previous to using the new grain of the season; at other times each brings his offering and presents it to the god. Besides these, every village throughout Bustar contains its representative of Dunteshwarree called Maolee; and also the common village goddess of the smallpox, or Settamace, here also erroneously denominated Bhowany and Thakorine. The women of the Mareas wear only a covering of leaves. They are described as a large and powerful race and as very honest.

Productions.—The principal are Rico, Grams and Pulses, Mundia, Kodo, Khootkee, Oil seed, Castor and Til, Cotton, Sugar-cane, Honey and Wax, Tikur, Bechandee, Lakh, Dhoop, Mohna, Sendree (a red-dye). Teak wood is said to be plentiful.

Revenue.—The whole revenue is stated at Rs. 25,870-14 and the expenditure at Rs. 38,081, so that probably the accounts are wrong. The land tax, levied on the plough, varies from eight annas to one rupee.

History.—The Rajah of Bustar is said to be descended from Pandoo, in whose line there was born at Delhi a Rajah named Veerbudr. Under the protection of a goddess, his descendant established himself at Wurungle in Hyderabad, and his brother, Aumun Deo, was driven to Bustar accompanied by the goddess, who here assumed the name of Dunteshwaree, and presented the

Rajah with a sword (khudga), now worshipped in the Rajah's house. For seventeen generations (the number of years is not mentioned) the family have continued to rule in Bustar. They are said to be Rajpoots of the family of the moon, and bear the title of Ruthputty, the Rajah sitting on the Ruth annually at the festival of the Dussera. The present Rajah, Bhyro Deo, succeeded his father, Bhopal Deo, in 1262 F., and is now about 18 years of age. He appears quiet and well-disposed. The Dewan of Bustar is the Rajah's uncle Dulgunjun Singh, who was appointed by the Rajah of Nagpore when Major Wilkinson was Resident. He has the entire management of the dependency. He is 30 years of age, proud, quiet in his temper and indolent in his habits. Bustar became tributary to Nagpore where one of its Rajahs, Duryao Deo, applied for assistance against his younger brother. The tribute at that time amounted to Rs. 4,000, which has remained without alteration up to the present time. Colonel Elliot issued an order directing all heinous offenders to be committed to his Court.

Meria Sacrifice.—Colonel Elliot found the people so shy on the subject that he rested content with renewing the stipulation for the suppression of human sacrifice and issued fresh instructions to the guards at Jugdulpore and Duntewarrah. He recommends the construction of a road which would bring the transaction of the affairs of this dependency more immediately and speedily under the control of the district Officer at Raepore.

Climate.—Colonel Elliot was not aware of any predisposing tendency in the climate to produce sickness. The only exception is the water of the Indrawutty which is suffused with a fluid resembling oil or bitumen. Colonel Elliot proposes an establishment for Bustar of Rs. 7,104 a year.

KHARONDE.

On 28th July 1856 Lieutenant Colonel Elliot submits to the Commissioner of Nagpore a similar Report regarding Kharonde.

Boundaries.—This Dependency is known only on the Nagpore side as Kharonde, the Oriya name being Kalahundy. It is situated to the East and rather to the South of Raepore, and comprised between the 19° and 20° 30' of North Latitude and the 80° 40' and 83° 50' of East Longitude. It is bounded on the North by Patna, (of Chota-Nagpore,) and Boad, (of Cuttack Mehals,) on the East, by Chinna Kimedya (Vizagapatam)

and Jeypore, (independent ?) on the South, by Jeypore, and on the West, by Jeypore, Bhendra Nowagurh and Kareal (both attached to Chota-Nagpore.) The Dependency is therefore wholly detached from any other part of the district. Its extreme length from North to South is 105 miles, and its extreme breadth from East to West 84 miles ; its form being compact and irregularly rectangular.

The number of gurhs was 18. Of these, thirteen gurhs have at different times been bestowed as appanages on members of the family, forming five zemindaries. The zemindaries are Jhooamool, Dadpore, Lanjeegurh, Korlapat, and Muddunporc. There remain therefore in the hands of the Rajah of Kharonde five gurhs, namely :—

			<i>No. of Villages.</i>
1. Joonagurh,	...	...	326
2. Bhundaysir,	...	...	187
3. Asoorgurh,	...	...	85
4. Dohgaon,	...	...	43
5. Kooksurah,	...	...	57

together with the talook of Burka (containing 29 villages.) The portion of Kharonde now under Khalsa management contains 727 villages, of which 627 are under cultivation and 100 waste ; of these 568 are uslee or principal villages and the remainder daklee or dependent. The country is high, lying near the foot of the main line of the Eastern Ghats and partaking of the watersheds both of the Mahanuddy and Indrawutty, which last, with several tributaries and sub-tributaries of the first, rise within its limits : it is well supplied with water and in some parts (as Jhooamoolte, &c.) the soil is enabled to yield two crops of rice within the year. The hills are chiefly plutonic. The light alluvial soil washed from their slopes is rich, fertile, and easily worked, yielding heavy crops of almost every description. Further in the open country, the soil approaches more to the character of black cotton soil mixed with lime nodules and occasionally alternating with red gravel, but all appears capable of cultivation, and likely to give good returns for labour well expended. The population is thinly distributed, however, and the tracts of waste land are extensive, as are also those of land once cultivated but now abandoned. At the same time the villages are numerous and small and the people appear to be well cared for, though as in Bustar, and partly for the same reasons, there is no stimulus for the people to exert themselves. Their case, however, is better than in Bustar ; they are evident-

by more contented and numerous, and less apprehensive of intercourse. No money passes in the country, not even cowries. The hills are well-wooded. The orange, though not indigenous, is here cultivated in considerable quantity, and produces very fine fruit.

Hills and Rivers.—The principal range of hills is contributed by the Eastern Ghats and though in some places disconnected, runs from north to south and rather west, all the rivers are small and tributaries of larger rivers. Those most deserving of notice are the Indrawutty, a tributary of the Godavery, the Tale, a tributary of the Mahanuddie and the Hattie which falls into the Tale. The Tale river is the principal.

Towns.—The villages of Kharonde are more numerous than, and very much exceed in size and condition, those of Bustar. The principal town of the dependency, Joonagurh, is situated on the banks of the Hattie river, distant from Raepore about 210 miles south east. It contains nearly 500 houses, principally of thatch and bamboo. The town of Bhundaysir, the temporary residence of the Rajah in consequence of the cholera having carried off his younger brother about 7 years since, is situated about 20 miles to the north east of Joonagurh, and contains about 200 houses. Next in size and importance to Joonagurh, is the town of Dadpore, about 30 miles to the north east of it. It contains upwards of 400 houses. Asoorgurh on a tributary of the Tale river, about 50 miles north east of Joonagurh, contains about 100 houses. Lanjegurh, about 42 miles south east of Joonagurh, at the foot of the Nyamgiri hills, is the principal town of the zemindary of that name, and contains about 150 houses. Kasipore, one of the principal towns of the Jhoomool zemindary, situated about 60 miles to the south and rather east of Joonagurh, contains about 100 houses. The bulk of the population belong to the hill tribe called Khonds, whose restless disposition seldom allows them to remain long on the same spot, and the greater part of whom pay nothing to Government, and have but little intercourse with its officers. There are 1753 villages with a probable population of 80,000, of whom two-thirds are Khonds.

Language, &c.—The language of the country is Oriya, written in the character peculiar to it, and the Khond spoken by the hill people of that name; but the use of paper is almost unknown, all records and correspondence being written with a style on the leaf of the palmyra. There are two

classes of Khonds—the Kotchriahs are most civilised, the Pahariahs or Dongriahs are confined to the hills. They differ slightly in customs, depending chiefly on their relative positions, and though this may be supposed to have determined their division, yet they do not intermarry or hold much intercourse one with another. Both worship the same gods which are represented by two sticks of unequal lengths inserted in the ground, without any temple. The names locally given are “Dhurnee,” or earth, and “Dhurmiah” (the judge of departed souls), and the offerings, which usually consist of arrack and live animals, as fowls, sheep, buffaloes, &c. and, until very lately, there is no doubt, human beings, are simply placed in front of the idol upon the ground. “Domes” are found throughout the length and breadth of the dependency, their numbers being considerable. Their language is a corruption of Oriya, and they weave clothes in addition to other employments of a meaner denomination connected with the village. Their duties are the same and the race appears to be identical with the “domes” of Hindustan; they correspond in every particular to the “dhiers” or outcastes of the village, though not aborigines.

The Productions of Kharonde are not of good quality or in great quantity. They are Rice, Kootkeer, Mundiah, Kodo, Goorjee, Cereals, Moong, Oorid, Candol, Pulses, Koolthee or Gram, Sursun or Mustard, Til or Oil Seed, Erundee or Castor Oil, Sugar Cane, Cotton, Tobacco. The soil is well adapted for wheat.

The Revenues are stated at Rs. 29,878-9, and the charges at Rs. 29,195-8, leaving a surplus of Rs. 683-1. The amount of private expenses is not large, considering the size of the Rajah's establishment: the pay of servants does not on an average exceed Rs. 2 per mensem, and the number of animals is moderate. The average sum spent monthly in actual provisions amounts to Rs. 560.

History.—The dependency of Kharonde is said to have formerly belonged to a family of Gunga-bunse Rajpoots, the last member of which, named Juggernauth Deo, having no male issue to succeed him, sent in the year 415 F. for one Rugonauth Sai Deo, the younger brother of the then Rajah of Shatrunjigurh in Chota-Nagpore, and gave him his daughter in marriage together with the right of succession to the dependency. This Rugonauth Sai Deo, a Naga-bunse Rajpoot, was the first mem-

ber of the present family, who have ever since uninterruptedly held possession of the dependency. The present Rajah Oodit-pratap Deo, the 28th in succession from him, succeeded his father in the year 1263 F. and is now about 21 years of age. He is manly, straightforward, and of an excellent manner and disposition; converses freely without being forward, appears to study to understand the management of his estate, and pays every attention to the orders issued to him from Colonel Elliot's Cutcherry, which are carefully and regularly executed and answered. His younger brother, Gopenath Deo, nominally the Zemindar of Dadpore, is about 20 years of age, and partakes of the good qualities of his elder brother. They both live together and the proceeds of the zemindary are thrown into the general purse. Colonel Elliot thinks it not improbable that Kharonde was one of those states which, together with Patna, Sumblepore, and others, were restored to Nagpore in 1806, after the treaty of Deogaon in 1803 had deprived Rughajee of his eastern possessions. It is said that in the days of Rughajee a tribute to Nagpore of Rs. 5,330 was fixed and when Nagpore came under British rule Rs. 830 were remitted.

Criminals flee into Jeypore on which the Government Agent at Vizagapatam says he has only a nominal influence. The distance to which the Kharonde dependency is removed from the sudder station of Raepore (upwards of 200 miles) without any regular communication, prevents the Deputy Commissioner from exercising much authority. Colonel Elliot recommends that the Rajah be provided with a copy of the rules furnished to Tuhseeldars for guidance in criminal and civil matters, modified to suit the comprehension and the power advisable to be delegated in such cases, from which sufficient of procedure and principle could be gathered to enable him to dispose of minor cases.

The Climate in general is good, and presents no peculiarities. Being near the Ghats, the rains are regular and abundant, during which season fever prevails, particularly amongst new arrivals and those unaccustomed to the climate and food of the country. The water, however, is good, at least that of the rivers and wells.

CALCUTTA UNIVERSITY.

1861-62.

The Published Minutes of the University.

Result of the Examinations for each year since the commencement of the University.

YEAR.	Number of Candidates.	Average Age.	Average proportion educated at Govern- ment Schools.	Religion.			Number passed.		Average proportion of passed to total num- ber of Candidates.
				Hindu.	Mahomedan.	Christian.	First Divi- sion.	Second Di- vision.	
Entrance Examination.									
1857	244	...	74.18	202	12	30	115	47	66.39
1858	464	17.82	74.35	416	11	37	29	82	23.92
1859 March	706	18.4	78.75	653	18	35	107	233	48.15
1859 December	705	17.96	69.50	626	27	52	65	178	34.46
1860	808	17.78	64.72	715	26	67	50	365	51.36
1861	1,058	17.85	56.23	966	41	51	73	404	45.08
First Examination in Arts.									
1861	163	19.63	53.43	154	2	7	15	82	58.28
B. A. Examination.									
1858	13	23	84.61	10	...	3	...	2	15.38
1859	20	23	75	17	...	3	3	7	50
1860	65	...	64.6	55	4	6	6	7	20
1861	39	...	82.05	33	3	3	5	10	38.33
1862	34	...	76.47	30	1	3	1	23	70.58
B. L. Examination.									
1858	19	...	100	18	...	1	11	...	57.88
1859	20	...	100	20	...	...	3	...	15
1860	22	...	100	20	...	2	10	...	45.45
1861	17	...	100	17	...	...	8	6	82.35
1862	13	...	100	13	...	...	8	5	100
L. L. Examination.									
1861	7	...	100	7	...	...	2	...	28.57
1862	16	...	100	16	...	...	4	6	62.5
L. M. S. First Examination.									
1857	12	20	100	8	...	4	6	6	100
1858	40	22	100	34	...	6	9	15	60
1859	31	21	100	25	...	6	6	6	34.70
1860	31	...	100	26	...	5	4	9	41.93
1861	16	...	100	16	...	...	...	7	43.75
L. M. S. Second Examination.									
1861	20	...	100	19	...	1	3	11	70
L. C. E. Examination.									
1861	10	...	100	9	...	1	4	2	60

MALIGNANT FEVER IN ZILLAH SAUGOR.

1859.

*North Western Provinces Records, Part XXXV.**Art. I.*

A species of malignant fever prevailed in the district of Saugor between June and November 1859. The out-turn of the Rubbee of 1859 had been so large that grain had never been so cheap in the past nine years. The rains set in early and during a long break at the end of June the fever appeared. A sufferer attacked with it would feel listless, and disinclined to exertion. Loss of appetite, and pains in the limbs, were also premonitory symptoms. These were followed, at the end of three or four days, by fever which would last two days. The patient was then left in a cold sweat, and in a state of perfect exhaustion, and, if the strongest stimulants were not administered, and the sufferer watched with the utmost attention, the vital powers gave way, and death ensued. Affection of the lungs, and copious bleeding from the nose, were also attendant symptoms of the disease. At once all the medical and available was sent into the district, the police were furnished with medicines and when the sick took the stimulants life was generally saved. The panic was far greater than in the case of cholera, because the fever was a new disease, native medicines failed, and death was rapid and certain. Whole families were cut off, and villages nearly depopulated. Young and old alike suffered, and as the sufferers (though ailing for days) were probably only confined to their houses for two days before death, the usual report of the disease from the villages was, that the fever attacked a person one day and he died the following day. In the Benaika tehseelee, the first cases appeared from a south-easterly direction towards Dumoh. Towards Malthone (to the north) the disease had crept up from Saugor and Khorai. In the Khorai tehseelee it advanced from the south in July or August. In Deoree, (towards the Nerbudda,) where the disease was very virulent, it advanced from the Saugor direction in July. In Rehlee, the first cases appeared at Gurhakotah; late in June, or early in July, due east of Saugor, on the edge of the Dumoh district. It was very fatal in this pergunnah. From Rahutgurb, reports came that the disease had shewn itself from the west, from Bagrode, Garispoor and Semassin, the states of Bhopal and Scin-

diah ; and travellers who passed through from that direction, said that for 50 coss to the west, the same disease was prevalent. The fever seems to have raged for 100 miles on all sides taking Saugor as a centre. The loss in Saugor is estimated at 23,000 souls. The Deputy Commissioner thinks the disease was contagious.

FLAX CULTIVATION IN THE NORTH WESTERN PROVINCES.

1860-61.

North Western Provinces Records, No. XXXV.

Art. II.

ON 15th February 1861 Dr. William Jameson, Superintendent Botanical Gardens, reports to the local Government that an account of what has been already done in the way of flax cultivation in India, and especially the Punjab, will be found in Dr. Royle's "Fibrous Plants of India" and in Mr. Cope's paper published in the Journal of the Agricultural and Horticultural Society of India, Part I., Vol. VI. of 1859.

In the Punjab the experiment was at first taken up with enthusiasm by the local Government but, on a recent tour, Dr. Jameson ascertained that in almost every district where the plant had been cultivated, unless that of Sealkote, it had been discontinued. The system at present followed by native farmers in cultivating Flax for its seed is miserable in the extreme, the shore or straw, from whence the fibre is obtained, being either used as fuel or broken up and mixed with other substances, and given to cattle. From the absence of a native middle class, Government must take the initiative, in order to overcome the prejudices of the ignorant, indolent, and slothful cultivators. By the exertions of Mr. D. McLeod and others, the experiment was prominently brought to the notice of the Flax manufacturers in Britain, where for years the supply of Flax from Home cultivation and Foreign importation has been far short of the demand. Samples of the fibre laid before them were pronounced as worth £55 per ton ; and so satisfied were they from the specimens exhibited, that the Punjab was fitted to grow Flax suited to the Home

market, that they formed a Company, "The Indian Flax Company Limited of the Punjab," in order to carry it on ; and their Agent, Mr. Wightman, has now settled in the Sealkote district, and has commenced operations. By him advances have been made to zemindars to cultivate Flax, which they will repay him back in kind. He has distributed acclimated seeds. Land of his own he has none, and he is therefore entirely dependant on native cultivators. The system introduced is an admirable one, and will continue to be so as long as the Company give the native cultivator a fair remuneration for his labor.

But Dr. Jameson is of opinion that the small success gained in the Punjab is not sufficient to stimulate private enterprise, to seek a field for operations in the North West Provinces. What are wanted are—*1st.*—Good scutchers and hecklers ;—men intimately acquainted with the processes of manipulation, and fitted to teach the natives of the country. *2nd.*—A large supply of acclimated seeds. *3rd.*—The best kind of machinery used in preparing Flax. *4th.*—The directions for the proper management of the Flax crop, compiled by the Committee of the "Royal Society for the promotion and improvement of the growth of Flax in Ireland," with a few alterations and modifications, to suit the climate of the North Western Provinces, translated into Hindce. In the magnificent system of Canal Irrigation, the North West Provinces has the means for Flax cultivation, far superior to that possessed by the Punjab. Dr. Jameson recommends that an experimental farm of from 50 to 60 acres be formed in the Sheharunpore district, adjoining the garden, where irrigated land can be procured at a reasonable rate ; that the incidental expenses, such as land-rent, water, &c., be met by the sale of the seeds,—a certain quantity being reserved for District Officers, for distribution to zemindars. That if European instructors be available in this country, two men be obtained from the ranks of any Regiment for a short time to prepare the fibre, and teach natives how to scutch and heckle ; that the fibre be sold, when prepared, to meet the wages of the parties who prepare it, a large sample being reserved for exportation and examination by British manufacturers. That acclimatized seeds be given to District Officers, (particularly those whose districts are in part irrigated by Canals,) to distribute to zemindars ; and that all zemindars re-pay in kind, with the shore or straw, the value of the seeds received ; and that small rewards, such as those distributed by the Deputy Commissioner of Sealkote, be given to such cultivators as present the best samples of Flax plants for scutching. Messrs. Wightman and Cope are prepared to purchase all fibre of good quality. It would be necessary to import

some good seed from Livonia or Kurland, from which all the best Dutch seeds are procured. To the acre about two bushels, or $1\frac{1}{2}$ maunds, are required; Dr. Jameson recommends that a ton, or 28 maunds, be imported, which, with the acclimated seed that will be available this season, would enable him to cultivate 50 acres of land,—an ample extent to spread the seed over the country.

The Lieutenant Governor last year saw in the Seharunpore Garden one field grown from Russian seed with plants from $3\frac{1}{2}$ to $4\frac{1}{2}$ feet high, and another from indigenous seed with plants from 2 to $2\frac{1}{2}$ feet. Dr. Jameson, being about to proceed to England, offers to make arrangements to procure the machinery used in preparing Flax, and the best kind of seed. The Appendix contains the directions for the proper management of the Flax Crop, compiled by the Committee of the Royal Society for the promotion and improvement of the growth of Flax in Ireland.

THE FOREST TRACTS OF THE SAUGOR AND NERBUDDA TERRITORIES.

1860-61.

North-Western Provinces Records, Part XXXV.

Art. III.

Captain G. F. Pearson, Superintendent of Forests, Jubbulpore Division, submits his Annual Report for 1860-61.

THE FORESTS.

In Jubbulpore the forests lie principally north-east and south-east of the city of Jubbulpore: the former along the Mahanuddee river; the latter in the Burellah pergunnah, in the bend which the Nerbudda forms between Mehidwanee (in Mundlah) and Jubbulpore. As regards the former, the most valuable timber consists of patches of the great belt of Saul, which stretches across Sohajpore, and in places extends west of the Mahanuddee. It is found first near Kuturceca, 35 miles E. N. E. of Jubbulpore, and proceeding northwards in several places along the river, and it also stretches 20 miles further to the east along the south border of Beejoragourh

along the rivers Omrar, Buddhai and Poplye, where there is a considerable amount of it. There are perhaps 20,000 trees in all within the British territory. Besides these, there are many fine Saj or Black eyne trees mixed with the Saul, and also by themselves in the Butgaon ilaqua; while along the streams are found many valuable old Kowah trees; and in the hills, in a few places, is some Beejasal. There is a small quantity of young Teak on the hills between the Mahanuddee and Koombee: this will be cared for. In the Burellah ilaqua a good deal of fine Saj and Kowah are to be found scattered about, and also in places a little good Ebony. Teak has existed, and young trees still are to be seen; but the good timber has been felled and carried to Jubulpore.

In Mundlah the forests are still very considerable in extent, though of late years those along the Nerbudda have suffered greatly from the depredations of the timber dealers. But the Nukta Pahar near Googree, and the Duldulla Pahar near Singpoor, are almost the only Forests where first class Teak trees can still be obtained on this side of the division: about 1,000 good trees remain here. There is also a good amount of large and well grown Saj, Hurdoo, Tendoo, Dhyana and Sissoo or Tinsa in these hills. South of Mundlah along the valleys of the Bunjur and Halon, and stretching along the Ghat range which separates this upland from the plains of Raipoor, are the great Mundlah Saul Forests, which are calculated to contain about ten lakhs of trees. They extend east, as far as Mowye; or about 40 miles in length by an average of 10 miles in depth, though of course they are by no means continuous over this extent. Till the roads are opened out, and the demand for timber is greater, it will not pay to work these Forests: the finest trees are about Toplah, at the head of the Halon river, and between Toplah and the Chilpee Ghat.

In Seonee the forests are valuable, more from the fact that both Teak and other timber trees seem to thrive well there, than from any great amount of valuable wood they contain. From Doomah, stretching westwards to Shreenuggur in Nursingpoor nearly 25 miles, the hills are literally covered with Teak trees; but for some reason the trees never seem to grow straight here, and branch out within five or six feet of the ground. The same observations may apply to the Gondee Koel, or tract of hills east of Doomah. Passing southwards, there is a considerable amount of exceedingly fine young Teak timber down the Wyngunga, which will be cared for; and in the southern portion of the District, both above and below the Ghat range, the Forests of Durassee and Doongurtal, contain many thousand

fine young Teak trees, which have been now saved from felling for five or six years, and give promise in course of time of affording an invaluable supply of wood. The soil here is sandy, and the trees seem to thrive remarkably well all along the foot of the hills. In the higher and more inaccessible ravines along the range of Ghats, there are still many noble trees of Saj, Beejasal, and Sheshum or Black wood, especially in the south-east corner near Sonamanee and Kunjaiee, above Lalburra.

To Baitool and Hoshungabad the timber producing tract is common. A line drawn from near Hoshungabad through Lokurtully to Mukrye, with a parallel drawn from Boree at the foot of the Puchmurrees, and passing south of Shahpore through Chicholee to the Taptee, and joined at both ends will form a parallelogram, enclosing with the valleys of the Machna, the Towah, the Sonebudra and the Deinwah, all the great Teak-producing tracts of the Nerbudda Valley. Within these limits there are few hills, which do not contain more or less trees of this valuable timber; but from having been systematically worked for nearly thirty years by the Borahs from Indore and Ojein, through whom the wants of all Western India have been supplied from here; but few trees are now left exceeding about four feet in girth, or what in the Burmah and Madras Forests, are counted as 3rd class trees, and never are allowed to be felled. There is, however, an abundance of fine Saj, Hurdoo, Beejasal, Kowah and Tendoo, almost in every portion of the hills, and in Nimawur is found the Unjun, an extremely hard and heavy wood of deep claret color, which may prove valuable.

In Saugor and Dumoh there is little valuable timber. In Dumoh the pergunnah Meriahdo, recently received in exchange for Chirkaree, contains some good young Teak. There is plenty of Saj and other commoner timbers in the Tejgurh pergunnah of Dumoh.

Chindwara contains very much exceedingly valuable timber. Independent of the portion of the Teak Forest of Baitool, included in this District near Bozee, there is at the east end of the Puchmurrees a fine Forest of Saul, near Delakaree, which will be very valuable from its proximity to the Great Indian Peninsular Railway. Also there is a great deal of remarkably fine young Teak and some Unjun all about Mohuljeer, which, if cared for, will in time be worth almost any amount of money, as it would be so very accessible; and the hills of Butkagurh, between Mohuljeer and Sconee, are covered with Teak and Sheshum, which, though much more difficult of access, might still be got out if energy was used. But all these Forests belong to independent Jageerdars.

General description of the Forests.—Though their resources are unlimited, their present condition is as bad as it practically can be; and though they have suffered greatly from indiscriminate felling and entire neglect through a long series of time, yet the greatest damage has been inflicted within the last two or three years. Most exaggerated reports as to the enormous gains that would be reaped, seem to have got abroad in 1857, when contracts to supply timber for the Railway were first made, and in consequence numerous Mahajuns advanced large sums of money to the Gonds to fell every Teak tree they could lay hands on. Moonah Lall in Mundlah is said alone to have felled 40,000 Teak trees, besides which Mr. Williams had a contract for 100,000 Teak sleepers, most of which certainly have been cut, though he has not got them. In Baitool the Ojein Borahs have in like manner (since Mr. Whittaker first went there on behalf of the Contractors for the Nagpore extension) felled every Teak tree of any size or value. Captain Pearson has stopped the felling of teak and finds a difficulty with the system of *Dhya* cultivation, or the cutting and burning of the jungle to form fields, as practised by the Gonds, the Koorkoos, and the Bygurs, more or less all over these hills. As yet Captain Pearson has only given orders that in preparing their fields they should restrict their operations to spots where fields have been formed before; as in such places the jungle is invariably a dense worthless scrub.

TREES USEFUL FOR RAILWAY TIMBER.

Under this section Captain Pearson gives an account of the following trees.

Teak (*Tectona Grandis*)—He would close the forests for some years to come, thin the jungle and train the numerous natural saplings without forming nurseries. The *Vindhyan* Teak is full of oil, and deeply marked by many irregular veins, which make it a very handsome wood; while the *Baitool* Teak is straight, grained, and faintly marked like the Teak of *Pegue*. The price of Teak in the Nagpore market is not under 1 Rupee 8 annas per cubic foot in unsquared logs; in Jubbulpore, owing to the large amount that has been felled of late years, it is procurable in small pieces from 6 to 8 annas per cubic foot, but good beams are scarce and fetch about one Rupee per cubic foot.

Saul (*Vatica Robusta*).—The value of *Saul* lies in its great strength, which is derived from the straightness and even texture of its fibre; and the Forest at the east end of *Puchmurrees*, as well as those to the north-east of Jubbulpore, should be in-

valuable for sleepers, as soon as the Railway works commence. It would not pay at present to work the Saul Forests south of Mundlah. If eventually Saul is received for beams and building purposes for the Railway, care should be taken about seasoning it. The Saul which is floated down the Ganges is water-purged in its transit, and unless proper means are taken to effect the same end, the wood will warp, split, and be useless.

Kowah (*Terminalia Arjuna*) is admirably adapted for sleepers as it resists white ants when mature. It is found in magnificent trees sometimes of 18 to 20 feet in girth. Being tough, springing strong and light, it is compared to the English Ash.

Saj or Black eyne, (*Terminalia glabra*) is a tough, strong, coarse-fibred wood, and is held in high repute by the Natives for all purposes where it is not exposed to the action of the air. When mature it is good for sleepers.

Mowah, (*Bassia longifolia*.) Large tracts of country in Mundlah, Seonce, Baitool and Nursingpore are covered with these trees; but in all these Districts they are so valuable both on account of the Abkaree and also for the fruit, on which the Gonds subsist almost entirely for a considerable period every year, that they are too expensive for sleepers. Major Cunningham puts down 150 years as the period over which well seasoned Mowah timber will last.

Hurdoo (*Naucllea condifolia*) is highly valued by the natives though it is liable to splinter with proper precautions it may be well accepted for sleepers.

Beejasul (*Pterocarpus* ?) is excellent and most enduring but not abundant. It may be used for all finer purposes as well as sleepers, as it works up well, which *Saj* and *Kowah* are too coarse in the grain to do.

Siris (*Acacia Sirisa*) and *Gurarree* (*Acacia procera*) are both excellent timber trees, and well fitted from their durability to make into sleepers. They are not abundant.

Semur, (*Bombax Neptaphylum*.) and *Salee*, (*Boswellia thurifera*.) though always considered worthless, if subjected to Dr. Baucherie's process, which has obtained so great repute in France, might prove of immense use. Salee is a white wood, which works up just like Deal, and half the hills in this Division are covered with nothing else. If it could be brought into use for sleepers by being preserved by Dr. Baucherie's process, it would be of immense importance. It appears to me to be exactly the wood suited for operating on in this way. Dr. Baucherie obtained one of the four Gold Medals given at the Great Paris Exhibition of 1855; so the value of his invention for preserving wood by injecting a solution of sulphate of copper into the sap tubes cannot be well

questioned, besides it has been taken up by the Permanent Way Company, 26, Great George Street, Westminster, who have published the Reports on his invention.

Captain Pearson concludes "As Teak can no longer be given, I have no hesitation whatever in putting forward the above eight sorts of timber for sleepers in its place, for which I believe all of them to be well adapted, and the supply to be ample and abundant; but it must ever be borne in mind that if success is expected only, mature timber must be used. Mr. Le Mesurier, Chief Engineer of the Jubbulpore Railway, has taken specimens of all these, which I prepared for him to England for critical examination by scientific persons."

FINANCIAL RESULTS.			Rs.
The receipts are	...	...	45,812 4 8
And disbursements	...	...	17,284 4 10
			<hr/>
Leaving a balance of	...	...	28,527 15 10

Captain Pearson recommends that the surplus be applied to roads in the Ghats.

The Appendix gives the elevation of Jubbulpore at 1250 feet and of Dhoopgurh above Puchmurree at 4,520, the highest. In April the average temperature in the shade in Captain Pearson's tent was 86° 2' and in January 55°.

MAHAMURREE AND SMALL-POX IN GURHWAL.

North-Western Provinces Records, No. XXXV.

Art. IV.

DR. F. Pearson, Assistant Surgeon, reviews what has been accomplished, commencing from the date of his appointment as Sanitary Officer for Gurhwal, towards the latter end of 1852.

Mahamurree.—Colonel G. E. Gowan in 1836 first reported the existence of the disease. Not till 1847 is it again officially mentioned. In 1849 Government deputed Dr. Renny to investigate the pestilence and he pronounced it to be a malignant fever of a typhus character; ascribing poverty, filth, and bad food as its causes, and recommending sanitary measures as the remedy. In 1851 Dr. Pearson pronounced it to differ in no

way from the Egyptian Plague, and in 1852 it was sweeping off whole villages. By fines the people were forced to turn all the cattle out of their villages, to sweep, white-wash and ventilate; and after two months, to use the people's own expression, 'you might have eaten your dinner off the very stones of the villages.' Mahamurree had now no dwelling place, and had departed. In Dr. Pearson's absence sanitary reform was neglected and in 1857 came the Mutiny, and the people began again to revel in all the filth of former years. In the Spring of 1860, Plague once more burst upon them with fearful strokes, destroying close upon one thousand lives. Again sanitary rules became the law of the land, and a second time, ere two months had passed, the disease had melted away before them. The people live in filth, never wash, have one blanket and rag round the loins, and their food consists of a morning and evening meal of bread, made of the coarse kinds of grains, with some salt and vegetables. They indulge but seldom in milk, ghee, or meat. They thus live not from poverty but choice. Dr. Pearson does not anticipate any great epidemic spread of the Plague; all its causes are so evidently endemic, and the people, in their terror of it, do exactly what under the circumstances ought to be done. They fly from the infected village into the jungles, and break up into separate families, holding no communication with each other. The first sign is the dying of the rats from some poison which does not affect other animals. Pure air, constant nutrition and stimulants are the remedies.

Dispensaries and Pilgrims.—There are 7 dispensaries of which the parent is at Sreenuggur, and six branches placed at intervals of about 40 miles from one another along the Pilgrim Road, supported out of funds bequeathed by former Governments and charitable individuals for the purpose of forming a Fund, wherefrom to provide a day's meal at different points along the road to all needy pilgrims seeking it. The fund, amounting to Rs. 6,000 a year, was taken out of the hands of fraudulent priests by Government. The pilgrims are mostly old men and old women, the road is rough and stony, one day in the hot malarious valley, next amongst the ice and snow, always steep and hard to climb, and food both coarse and dear. Fill in this picture of fatigue, of heat and cold, of hunger and thirst, with the bruised and swollen feet, dysentery, diarrhoea, and fever in all its kindred forms, and what wonder that they laid down and died. Scenes such as these, however, cannot occur now-a-days. A pilgrim can never be further away than 20 miles from a Dispensary, and arrangements are made for conveying all such as fall by the way to the nearest branch, where they are maintained

and treated until able to proceed on their journey. To fully appreciate the value of these institutions, it is only necessary to visit them during the pilgrim season, and hear the grateful outbursts from well-filled wards.

Vaccination.—After great difficulty overcome by Mr. Strachey, in 1860 the whole population was protected. Last year there was one death from small-pox, and one only amongst a population numbering about 250,000 over a country 5,000 square miles in extent. There is not a country in Europe, not even excepting Prussia, where vaccination has been for many years past compulsory, that can show a more favorable result, and this at a cost of six Vaccinators on Rs. 10 each per mensem, or £72 per annum. In Gurkhal, too, is the nursery from which the whole of the North Western Provinces and Bengal have been supplied with perpetual relays of fresh vaccine virus, showering its blessings upon untold thousands. In Rohilkund, the numbers vaccinated in 1860 were owing to the famine, smaller than usual, viz., in all 28,151. Of this number 16,346 were successful; 6,359 unsuccessful; 2,491 doubtful; and 2,955 result unknown. In the hills there were vaccinated 11,121; of whom 9,801 were successful; 567 unsuccessful; 461 doubtful; and 292 result unknown: making a grand total of 39,272 vaccinated, giving an average of upwards of 250 operations per mensem by each Vaccinator, which is nearly as much as one man can accomplish properly. From the Hill Depôt were distributed 7,794 crusts, 1,568 points, and 191 glasses, a considerable increase on former years, and from all quarters letters were received acknowledging their excellence.

EPIDEMIC CHOLERA IN AGRA CENTRAL PRISON.

JULY 1861.

North-Western Provinces Records, No. XXXV.

Art. V.

DR. G. R. Playfair, Civil Surgeon, when temporarily in charge of the Agra Central Prison, in a proportion of the 122 cases admitted during that period, employed a practice which he had twice before followed with considerable success. In the pre-

sent instance, the results were strongly in its favor. Dr. Playfair has had opportunities of observation during five cholera epidemics, two of them among Europeans; he has also seen a great number of cases in private practice, and is convinced that there is an early stage of true cholera which yields to prompt and vigorous treatment.

First Stage.—During the first stage, before the patient has decidedly entered the second, a strong stimulant, with some opium and Cayenne pepper, does, in a majority of instances, check the disease. Brandy is most easily procured and efficient. The quantity must be proportioned to the condition of the patient, usually half to a whole wine glass-full of brandy for an adult, with 20 drops of laudanum and a small pinch (2 grains) of Cayenne pepper in half a tumbler of very hot water, suffices to remove all the symptoms. After taking the dose, it is essential that the patient should lie down, and remain quiet in a darkened room. It is in this stage that that admirable compound, the cholera pill, essentially a stimulant, does so much good, and it is the only form in which cholera medicine could be conveniently and extensively distributed; but where it is possible, as in a prison, or barrack, or in private practice, a fluid stimulant is preferable, because, being more speedily absorbed, it acts more quickly.

Second Stage.—Dr. Playfair describes a remedy for this stage of collapse which is so fatal, first suggested by Dr. Annesley—venesection. Where the circulation is restored by the combined action of the stimulant and venesection, the probability of the patient's recovery is very much increased. Dr. Annesley was the first to point out the necessity of blood-letting to relieve the congestion of the heart, but the plan has never been successful because it has not been known that it is useless to attempt venesection if no pulse is perceptible at the wrist, and that the object is not to deplete, as if to relieve an inflammation, but merely to lessen the resistance to the action of the stimulant to the contraction and re-invigorated action of the heart. Sixteen, twenty, twenty-four ounces, are the amounts Mr. Twining usually ordered to be abstracted. Dr. Playfair never took more than eight. The results of 122 cases were as follows :—

	Admitted.	Died.	Cured.	Per-centage Deaths.	Per-centage Cured.
1.—Usual treatment, ...	58	26	32	41·82	55·18
2.—In addition Saline Emetics, ...	29	12	17	41·37	58·63
3.—Stimulants--Venesection,	35	8	27	22·85	77·15

MEASURES ADOPTED FOR THE RELIEF OF THE
POOR IN MORADABAD.

1861.

North-Western Provinces Records, No. XXXVI.

Art. I.

THIS Report is made at the request of the Famine Relief Committee of Moradabad by J. Strachey, Esq., the Magistrate.

The Famine.—There is no district in the N. W. Provinces more entirely dependant upon its own production for the food required by its inhabitants. The means of communication in Rohilcund are infamous, and the importation of grain, in time of scarcity, in quantity sufficient to feed any considerable proportion of the people, is a physical impossibility. The object was therefore to promote emigration and not, by public works, to increase the number of food consumers. Not less than 50,000 persons left the district. In the neighbouring Terai the harvests were abundant and food was cheap, while the plentiful pasturage preserved thousands of cattle. The agricultural classes did not suffer. No class of the community suffered so severely as that of the chumars, unless it be that of the joolahs. Out of a total of 5,920 persons in the Poor-house on the 31st May, 3,961 belonged to these two classes. Many of these people are village agricultural servants and artizans, but the greater part of them are non-

agriculturists of the towns. The Mahomedans suffered more severely than the Hindoos, in proportion to their numbers ; and while Hindoos of good caste required little relief, the Mahomedans of what are considered the superior classes, were often in great difficulty. The number of Sheikhs, Syuds and Puthans, who were relieved, was very large. The Mahomedans, generally, were never so well off as the Hindoos, and, since the mutinies, they have been in a still more impoverished condition.

Relief.—The great object of the Committee was the establishment of a Poor-house, which should at the same time be, strictly speaking, a work-house. The distribution of food at public kitchens to all comers, was open to much objection, because no enquiry or discrimination is possible under such circumstances. At the Sudder Station, real supervision was alone possible, and the Committee started with the assumption that such supervision was essential. At each Tehseelee, and at other places where the distress was great, Sub-Committees were appointed. These usually consisted of the Tehseeldar, Moonsiff, Thannadar, and respectable native gentlemen of the place. These Sub-Committees were expected to send to the Poor-house at Moradabad, all persons who appeared to have no other means of support. It was their duty to supply the means to all such persons of reaching Moradabad, and for giving them food until they were received into the Poor-house. All persons unable to walk, were sent in by cart or other conveyance. The Poor-house was situated in a mango grove of great extent, about half a mile from the city of Moradabad, on the Allyghur road. The most valuable check on admission to the Poor-house is that relief should ordinarily be given in the shape of cooked food. It was then insisted upon, that no persons should receive food who had not first been examined and passed by the Committee. The only exception was made in favor of those who are evidently in actual want of food at the time of examination. They were necessarily relieved upon the spot. As a general rule, all applicants for relief must appear before the Committee the day before they are admitted into the Poor-house. Three members of the Native Sub-Committee met daily for the purpose of receiving and judging of the propriety of all applications. Each person passed got a wooden ticket, and the helpless were separated from those fit for light work, so that on the 31st May, out of 5,920 persons in the Moradabad Poor-house, 2,372 were employed in various occupations. The preparation of the food was left to the Native Members of the Committee. The cooking arrangements are of two kinds. For Mahomedans, and for all persons who make no objections, on the ground of caste—and

these formed the larger proportion of the whole—the cooking was done by contract. For preparing the food of those classes of Hindoos, whose prejudices of caste have to be considered, brahmin cooks and kuhars were entertained. Working paupers received 10 chittacks of flour and 2 of dal—non-workers 8 and $1\frac{1}{2}$ respectively. The former at time of distribution were divided into parties of 200, the latter of five hundred, each party in a separate enclosure. The food was distributed between ten and twelve A. M. The paupers sat down, according to the order of their numbers, in the places assigned to them, each person showing his ticket. On the 31st May, 2,372 persons were employed in the Poor-house in various simple occupations, from 6 to 11 A. M. and 1 to 4 P. M., men, women and children wrought at cotton-spinning, cloth, newar and durree manufacture, rope-making, corn-grinding, road-making and shed-building.

The articles prepared, after costing Rs. 990-11-11 for materials, are valued at Rs. 1,702-13-2 giving an estimated profit of Rs. 712-1-3. Great care was taken to keep the Poor-house clean and to burn the filthy rags of the paupers. In May the mortality was 61 out of 4,217.

Purdah-Nusheen Women.—This difficult class was managed by Syud Ahmed Khan, Principal Sudder Ameen, who first checked the lists. It was considered that a woman is able to spin daily, without much difficulty, one chittack of cotton-wool, and that an allowance of one anna per diem will provide her with sufficient food. A supply of cotton, enough for eight days' work, was enclosed in a small basket, and this, with eight annas in money, was sent to every woman who receives this kind of relief. It was found impracticable, without frustrating some of the chief objects in view, to distribute daily the cotton and the wages for each day's labor. Thus each woman received an allowance in advance sufficient to maintain her for eight days. On the last day of May, out of 1,105 women 1,020 received relief in exchange for work, and only 85 were unemployed.

General Results.—During the four months ending on the 31st May, the total number of persons relieved was 3,30,203. The total expenditure incurred during the same period was Rs. 19,185-13-9; the receipts from total subscriptions and donations amounted to Rs. 10,704-14-0; a corresponding sum was contributed by Government; Rs. 1,141-11-6 was received from the sale of articles manufactured in the work-house, and the sum of Rs. 5,000 was granted by the Central Committee at Agra. With the exception of the native officials the upper classes of the Native community generally shewed an apathy and an indifference to the sufferings of the poor which do them infinite dishonor.

Many gave their money and their services but grudgingly, or merely to ingratiate themselves with their European superiors.

DISPENSARIES IN THE NORTH-WESTERN PROVINCES.

1860.

North-Western Provinces Records, Part XXXVI.

Art. II.

THIS Report is drawn up by Mr. S. M. Moens, the Officiating Assistant Secretary to Government. It enters into great detail regarding each division. The general results are these. On the 1st January 1860, ninety-two Dispensaries were in operation, including those in the recently transferred districts of the Saugor and Nerbudda Territories. Four new Dispensaries were established during the year, *viz.* at Tuppl and Haupper, in the division of Meerut, at Futtehghurh, and at Hurda in Hooshungabad. The accounts shew that the Dispensaries, generally, at the close of 1860 were in a most prosperous state. The floating balances had increased by Rs. 10,855-15-7 during the year. The invested funds had increased from Rs. 54,516-8 in 1859, to Rs. 89,054-1-3 in 1860. There was a slight increase in the sums collected by subscription.

		1859.			1860.		
European,	6,842	2 8	10,507	11 2	
Native,	25,386	12 6	29,213	2 3	
Total,	32,228	15 2	39,720	13 5	
Total increase,	7,491-14-3				

The total sums received during the year from various sources amounted to Rupees 1,58,708-1-2:—

Government Grants-in-aid,	...	...	82,731	3 11
Nuzzool and local funds,	...	...	26,199	9 11
Interest of vested funds,	...	...	10,056	5 11
Subscriptions,	...	...	39,720	13 5
			1,58,708	1 2

Of this sum Rs. 1,24,020-10-4 were expended, leaving an available balance in the hands of the several Committees of Rs. 34,687-5-10. The total number of patients treated was 3,98,272, being an increase of 75,553 over the number shewn in the returns for the previous year. The greatest increase is shewn in the Rohilcund returns. In that division the excess of patients treated during 1860, as compared with the number to whom relief was afforded in 1859, amounted to no less than 30,091. Of Surgical operations, both major and minor, 15,937 were performed, being an increase of 4,200 over the number shewn in the returns for 1859; of these 15,728 were successful. Remarkable progress was made in vaccine operations :—

		1859.	1860.
Operations successful,	...	33,019	51,877
Ditto unsuccessful,	...	9,774	16,257
Ditto doubtful, ...	...	5,346	8,176
Total	...	48,139	76,110

Total increase in number of operations, ... 28,471.

These returns do not include the operations carried on by the Superintendent of Vaccination in Kumaon, Gurhwal, and Rohilcund. What may be done by district officers who use personal influence to obtain native subscriptions, may be seen in the Meerut Division where they have risen from Rs. 60 in 1859, to Rs. 5,444-14-9 in 1860; of which latter sum Rs. 4,413-2-9 were contributed by the Meerut district alone. Again in Barcilly there was no subscription in 1859, while in 1860, Rs. 1,458-14 were collected. The charitable dowager Rane of Vizianagram, a resident of Benares, from her income of Rs. 2,000 per mensem, supports at her sole charge the Bheelopoor Dispensary in that city, besides distributing alms with much judgment and liberality. At Ajmere the dissection of a body by a zealous native doctor frightened away both subscriptions and patients. Native doctors are too prone to consider the charge of a Dispensary as a mere stepping stone to a lucrative private practice, and will sometimes refuse medical aid in urgent cases of sickness, if they think the circumstances of the applicant admit of his giving a fee, of however trifling an amount. The Sub-Assistant Surgeon of Ghazee pore was removed during the year under report for conduct of this nature; but it is to be feared that his is by no means a solitary instance. The Rohilcund Division shews the best results. At a cost to Government of Rs. 16,382-8-2, 1,25,191 patients, or more than three-eighths of the total number treated in the North-Western Provinces, were relieved.

**"TYPHOID CONTINUED FEVER" IN A MOUZAH
OF BOLUNDSHUHUR.**

1861-2.

North-Western Provinces Records, Part XXXVI.

Art. III.

W. H. Lowe, Esq., the Magistrate of Bolundshuhur, and Dr. D. Hood, the Civil Assistant Surgeon, report on the "Typhoid Continued Fever," which so severely attacked the inhabitants of Mouzah Chatunga Khoord, pergunnah Jewur at the end of 1861 and beginning of 1862. In the beginning of 1861 this same disease attacked the village of Bhoonna, situated in the eastern boundary of the Jewur pergunnah; it was severe while it lasted, but entirely disappeared by the end of the month. The fever appears to have been introduced into Bhoonna by a young man of that village, who went to a village in pergunnah Tuppul, zillah Allygurh, to fetch his bride. The tehseeldar subsequently reported the prevalence of this fatal disease in mouzahs Sehudah, Furreedpoor, and Nyamutabad, on the Ganges Canal, in the Khoorjah pergunnah. Dr. Hood reports that this disease, which was epidemic in the village of Chatunga, had for cause a certain miasma, nature unknown, local in its origin and action, incapable of being conveyed in effective quantity or quality to a distance, and which probably became infectious, but not virulently so. In the event of an outbreak of a local epidemic of this nature, there is no measure better calculated to check the extension of the disease than simple evacuation of the locality. Chatunga is a village of 250 inhabitants. The disease attacked age and sex indiscriminately. There were 51 deaths since the beginning of October, viz., 25 men, 14 women, 12 children.

CHOLERA IN THE MEERUT CENTRAL PRISON.

1861.

North-Western Provinces Records, Part XXXVI.

Art. IV.

Dr. S. Clark, Inspector General of Prisons, submits a report on

the sanitary condition of the Central Prison at Meerut for the year 1861.

The mortality was unusually high, which is accounted for by the wretched condition many of the prisoners were reduced to, through want of food and other privations, prior to incarceration. Unfortunately the flat nature of the ground for some distance round the Jail renders perfect drainage almost impossible. Owing to the Famine the District Authorities were obliged to sentence most wretched objects to imprisonment for vagrancy and theft. But the drainage is to be improved as much as possible. Cholera first appeared in the Prison on 27th July, and continued to increase in intensity until the 19th of August, the period of its maximum. The disease then declined slowly, and suddenly disappeared on the 25th.

Sanitary Arrangements.—Immediately all sedentary work was put a stop to, and the prisoners were employed in levelling, cutting drains, and other healthy labor outside the Prison walls. They were placed in workshops and other extra buildings to prevent any overcrowding. Three Barracks outside the Jail were used as cholera wards. The alarm among the prisoners on account of the awful visitation was great, and the depression of spirits, as usually happens, considerable. About 600 convicts were removed into empty stables in the old Cavalry lines; prisoners suffering from old age, blindness and infirmities were released.

The average strength of prisoners was 2,130, the average daily number of sick was 12,177, the ratio of sick per cent. was 571, the ratio of deaths to strength was 131, and the ratio of deaths to treated was 49. The number admitted into hospital from 27th July to 30th August was 664 of whom 320 were discharged and 344 died. On the cessation of the cholera a very fatal type of low continued fever, accompanied by diarrhoea, prevailed among the prisoners:—

Average total strength of all classes in Jail during the year.	Total number treated.	Total number of deaths.	Per-centage of treated to average strength.	Per-centage of deaths to average strength.	Per-centage of deaths to treated.
2,188	3,357	1,449	153.43	66.22	43.16

Dr. Clark, in his Sanitary Report, considers that there should be a sanitarium consisting of a few permanent barracks in an elevated healthy situation in connection with this Prison, where,

in times of great sickness, at least one-third of the prisoners could be removed on a moment's notice. Something of the kind is very much wanted for ordinary occasions, for the purpose of affording change of air to the convalescent and weakly, a considerable number of whom must always be at every Central Prison. The Lieutenant Governor does not commit himself to this proposal, but awaits the submission of a scheme.

MILITARY SANITARIA.

Indian Records, Military Department, No. III.

1862.

Almorah.—The capital of the province of Kumaon, lies in the interior of the hills about 30 miles to the north-east of Nynee Tal. Built on a ridge about two miles long, average elevation 5,500 feet. There is no forest, and the surrounding hills are generally bare of wood. The climate is healthy, but the temperature is too high for invalids who have suffered from the heat of the plains. Water is plentiful except during dry months. The place is held unsuited for European troops, though during the rainy season it has advantages over many spots.

Amherst.—A promontory of land, washed on one side by the sea and on the other by the Moulmein river, well elevated, with an open porous sub-soil beneath a clayey superstratum. A dense jungle and a swamp should be cleared and drained and then Amherst would doubtless become a very desirable locality for invalids.

Ayar Pata, near Nynee Tal, is a magnificent feature in the landscape, and its limestone precipices covered with oak and rhododendron are universally admired. Aspect north—a deep clay soil—damp—with a want of spring water.

Barajai Hill, an enclosure within the jurisdiction of Chota Nagpore, but does not afford sufficient space for building purposes.

Burmleo on the Sardah, about 140 miles from Hurdwar on the Ganges, a sanitarium available for the military stations of Rohilkund, Oude, and of the Doab below Meerut.

Callagouk or Curlew Island on the gulf of Martaban, five miles from the mainland of the Tenasserim coast, and 30 miles south of Amherst point, in latitude $15^{\circ} 52'$, and in longitude

97° 42'. It is eight miles long, exclusive of "Cavendish Island" which lies at its extreme south end, and which is half a mile in length. The greatest breadth of the island is about one and a quarter mile, and on its highest part, which is about 500 feet above the sea, are the "remarkable trees,"—a point for navigators in making the coast. The base of the island is primary rock, the superstratum being a rich mixture of open porous soil composed of sand and vegetable mould. Its formation is very peculiar, the northern and southern portions differing considerably. The northern half on the western side is composed of a long granite ridge, with an average perpendicular drop to the sea, varying from 250 to 300 feet. To the east the ground descends to the sea in gentle or abrupt slopes. The opposite side of the island is broken into alternate or isolated hills, with level well raised intervening spaces forming three bays; the first Quarry Bay, where the stones are now being prepared for the Alguada Lighthouse, is the deepest at high water. The beach is sandy, but at ebb tide an extensive mud flat, covered in places with mangrove, is exposed: the narrowness of the channel between the island and the mainland on this side tending to the accumulation of mud. The southern half of the Island differs entirely from the northern, inasmuch as both sides are broken into bays. To the west, Retreat Bay, Rocky Bay, Sea Bay, and Fish Bay, are beautiful hard sandy beaches, well protected by high land on each side, and open to the ocean in front, with a fine rolling surface on the beach, and only divided from one another by projecting rocky points, and from the corresponding bays on the eastern side by well raised necks of land sloping east and west, free from all swampy grounds, and ascending north and south to the hills which divide the bays. The eastern bays look on the distant mainland, rising in bold outline on the horizon. These very much resemble the western bays, in fact differ only by the mud uncovering at half tides: the rise and fall at spring tides being 22 feet. All the bays on the eastern side are perfectly protected from the south-west monsoon; while during the north-east monsoon the bay on the western side and the deep water close up to the ridge on the north, affords a free, open, and safe place for yachting and boating. The bays on both sides are peculiarly well suited for bathing, the water on the western side especially being always pure and clear, except at spring tides. The island has been occupied by a large party of workmen since April 1869.

Daily average per cent. of prevailing diseases from 30th April 1860 to 30th April 1861.

	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	Averages.
Strength	212	209	295	367	400	433	495	502	480	480	705	710	440
Dysentery	0.09	2.07	...	...	...	...	1.10	3.36	...	1.14	...	...	2.23
Ulcers	0.7	5.1	3.1	4.1	5.5	3.8	2.6	3.5	4.1	2.1	2.08	3.64	3.38
Fever	0.8	1.0	0.9	1.0	1.2	1.5	3.4	4.9	4.1	4.1	2.3	1.55	2.17
Other diseases	5.05	8.61	6.13	6.14	7.05	8.01	4.25	8.99	8.30	16.74	11.99	22.22	6.13

There were nine deaths during the year from diseases contracted on the island, viz. :—

3 from dysentery in January.

3 " fever from exposure ; one in July, one in November, and one in January.

3 " accidents and other diseases.

No deaths occurred amongst the Europeans.

The average thermometer in May and June during the day is 75° ; during the hot weather it is 88°.

The great advantage of this island is its proximity to Madras and Calcutta, and to the principal stations

in Burmah. China junks bring fruit and other articles to the island ; and fish of an excellent quality is procurable at the bays. Few places possess the advantages which this island does for a watering place, a sea coast sanitarium ; and besides affording many beautiful localities for private houses, there is abundance of space available for 1,000 men on eligible sites.

Cheerat.—In Kohat. An establishment on the summit of the Khuttuck mountains at Cheerat would afford immediate relief to the soldier emaciated from sickness, and debilitated from the effects of the Peshawur fever. It is proposed to construct two half-company barracks, such as those which now exist at Kamilpore, sufficient for 50 men each ; one of which might be used as an hospital, while the other will afford the requisite accommodation for the probable number of invalids. But it is situated in the near proximity to Afreedee tribes ; and the road which leads to it passes over an extensive stony waste, intersected with numerous ravines leading down from the hills. The road is thus for the greater part of the distance far removed from villages and police posts. Insecure at all times, it would be especially unsafe at night. For this reason no buildings should be erected at Cheerat, but the hill should in ordinary times be available for encamping a detachment from the 15th August to 15th October.

Chendwar Hill, called by the Natives of the place the "Jhool Jhool Hill," is of conical form, and has an elevation of 2,815 feet above the level of the sea, and of 735 feet above Hazareebaugh. Its base is about six miles from the station, and the foot-path leading up to the summit of the hill where there is a trigonometrical station, is exactly one mile in length. The purity of the air on this isolated place must be considered its greatest advantage ; and this, combined with the change of scene and extensive view, cannot but prove beneficial to sick and weakly men. Water however is scarce and jungle abundant.

The Cherra Poonjee Hills in Assam are in the midst of a desert, and have never been approved of since a sanitarium was first established there.

The Cossiah Hills are bounded by the Garrow country of which very little is known ; to the east is North Caclar, now a British possession inhabited by Kookees, Meekeers, and Nagas ; on the south lies the populous and fertile valley of Sylhet, and on the north the flourishing districts of Kamroop and Nowgong in Assam. The country generally may not inappropriately be divided into three great divisions : the broken rugged portion facing the south and bordering on Sylhet, which is rich in excellent coal and limestone beds ; the centre which is the highest, and contains large tracts of beautifully undulating country and ex-

tensive table lands admirably adapted for the purposes of agriculture ; and the northern slopes facing Assam, which are mostly covered with magnificent forests and possess very fine soil. The soil in the southern portion of the hills is in fact usually very poor, and the climate from the excessive quantity of rain that falls, is far inferior to that in some other parts of the range. The temperature of the air is however cooler than might be expected, but this is a good deal more owing to the great dampness of the atmosphere than to the elevation of the hills in this direction, which cannot be put down as much more than 4,000 feet above the level of the sea. The centre tract of country in these hills may be set down as averaging twenty miles in breadth. It extends the whole length ; and as this central division is admirably adapted for the location of European colonists, we may say that there are 2,000 square miles of hilly country exactly fitted for the purpose required. In this tract of country there are of course considerable variations of altitude, but the average height cannot be put down as less than between 5,000 and 6,000 feet ; there are points above 6,000 feet high, but the villages which however are neither numerous nor deep, are somewhat lower than the level of the surrounding country. In climate this part of these hills is vastly superior to that of any other portion ; it is far drier and cooler than either of the other two divisions, and in the cold weather is very bracing and invigorating.

Dalhousie on the Chumba Hills, north-east of Lahore. Climate peculiarly dry, and therefore especially suited to a majority of the cases under which European Soldiers suffer. The station consists of five hills, four of which, Pukrota, Teera, Putrain, and Kuttullugh, run from the north-east to the south-west. Pukrota is the highest of the five, and forms the north-east boundary of the station : it has an elevation of about 8,000 feet. No houses have as yet been built on Pukrota, but one or two sites have been taken. The next hill is Teera, also called Peera Sona, the summit of which is 7,400 feet. Colonel Burnet has taken a site on the summit ; Captain Perkins has also taken a site on this hill. Captain Nightingale's house is also on Teera, at an elevation of about 500 feet below Colonel Burnet's site. The next hill is Putrain. On the top of this hill is the large house built by Captain Fagan, now the property of Colonel Burnet. On this hill are three small houses built by Captain Fagan, and a house the property of Mr. McGuffren ; all these houses are in habitable condition, and were all occupied during the past season, with the exception of the smallest house, which is only fit for an office. Next to Putrain is Kuttullugh, on which is the Thanah. The fifth hill is the Barrack Hill, called by the Natives Sonanatolla :

it runs to the north from Teera, and is lower than Pukrota, Teera, and Putrain, but higher than Kuttullugh. A long account is given in the Report of the disposition and extent of the station roads and of the work which was proceeding upon them.

We may add that on the west, the hills although much higher than those on the east, are at a considerable distance, and therefore leave the station comparatively open in that direction. The river "Ravee" flows between the hills on the west of Dalhousie. The vegetation is luxuriant; stately oaks and rhododendrons are plentiful, and there is leguminous brushwood in great profusion; there is also a great variety of Alpine plants and ferns in their season. The hills on the east are well wooded with pines, oaks, and rhododendrons: those on the west are bare, rocky, and barren. The soil is in many places rich in carbon; in some places it is composed chiefly of clay and disintegrated granite; on the whole it is dry, owing probably to its want of depth and a rocky sub-stratum composed chiefly of granite, gneiss, and slate, on which it rests. Taking into consideration the shallowness of the arable soil in most places, it possesses great resources. This is well shown during the rains, when the ground being saturated with moisture, plants grow in great luxuriance. With a little cultivation the soil could be made to bear all the vegetables in ordinary use. In some parts of the station potatoes of good quality, Indian corn, cucumbers, melons, and other vegetables are reared by the natives. Water is scarce though of excellent quality and the springs are few. The prevailing winds are north and south, and although occasionally violent, are in general mild and pleasant, moderating the temperature considerably. The proximity of Dalhousie to Meean Meer and Umritsur renders it a desirable sanitarium for the invalids of Regiments stationed at those places. The hill set apart for barracks is the best that could have been selected for that purpose.

Gagur Range in Kumaon commences on the left bank of the Kosce and contains higher mountains and finer scenery than are found in almost any known part of the Himalaya at so short a distance from the plains. The elevation of the peaks of the Gagur generally exceeds 8,000 feet. Cheenur the highest point, close to Nynee Tal, rises to 8,700 feet above the sea. We find in this range, and here alone, between the Ganges and the Sardah, almost every thing required for a Hill Sanitarium. East of Nynee Tal the Gagur begins to recede from the plains. The average elevation of the range remains nearly the same. The Sutchoola peaks, about ten miles from Nynee Tal, are nearly twenty miles distant from the plains; and we may consider this

to be about the eastern limit of the tract which is likely to offer the most suitable situations for sanitary establishments for European troops.

Gurhwal in the Himalayan Range lies between the Ganges and Sardah rivers. It differs from those parts of the Himalaya which lie to the north-west of the sources of the Jumna: here there is no country like Kumaon or Cashmere, lying beyond the first of the snowy ranges of the Himalaya, possessing an admirable climate, and protected by the mountains, that form its southern limit, from the influence of the periodical rains of India.

Huldwanee below Nynee Tal. No part of the whole tract has been so extensively cleared and reclaimed. The comparative healthiness of the climate of Huldwanee has been completely proved by experience. The permanent inhabitants suffer little; and in 1857 and 1858 when considerable numbers of troops were quartered there during the unhealthy season, there was little or no sickness. Huldwanee is surrounded with fine cultivation, which is constantly and rapidly increasing in extent; and the canals which Major Ramsay has constructed, afford the advantage almost unknown in any other part of this tract, of an ample supply of wholesome water. Huldwanee is 1,550 feet above the sea.

Jumeera Pat is one of two fine plateaux in the Korundah sub-division near the Soane. The water is bad, and supplies of all kinds have to be brought from a distance.

Jynteah, which borders on North Cachar is an exceedingly fine tract of country, with some beautiful sites for farms and European colonies; the soil is richer and the cattle finer perhaps than in any other part of the hills; there is also more timber. Here the oak and fir attain to a very fair size; wild strawberries and raspberries are as plentiful as blackberries in England. The villages are large and thriving, and cultivation is carried on to a great extent. It has now been under British rule since 1835; and although a slight disturbance lately took place regarding the imposition of a house tax, the whole has been paid up. In extent it measures about 500 square miles.

Kaila Khan Hill, in the Himalayan range of hills which lie between the Ganges and the Sardah, about a mile from the Southern end of the lake. It possesses in a remarkable and very unusual degree, almost every natural advantage which can be expected to be obtained at a sanitarium in these mountains. It is a ridge running north and south, forming a spur of the Luria Kanta range. At its junction with the main ridge, it has an elevation of about 6,300 feet; it then almost immediately rises

to about 6,500 feet, but not steeply or precipitously, and then falls rather rapidly towards the south. Between the elevations of 6,500 and 5,800 feet, there is ample room for the accommodation of several thousand men. The Kaila Khan ridge is well but not densely wooded, and the views which it commands are magnificent : there is very little underwood, and no rank vegetation : the ridge is composed of argillaceous schist ; the soil is good and the surface drainage excellent. The climate of Kaila Khan, so far as temperature is concerned, may be considered the same as that of the greater portion of the Nynce Tal settlement, but Kaila Khan has the advantage of being an open hill and not a confined valley. Its situation on the southern face of the range gives it a large amount of rain and cloud during the rainy season ; but in this respect there is little practical difference between it and other parts of the station.

Kala Dhoongee, another point in this range of hills and one of the nearest and most easily accessible points at the foot of the Kumaon Hills from the stations of Moradabad and Bareilly, and from those of the Doab and Oude. Although its climate is not equal to that of Huldwanee, possesses many of the same advantages : the cultivation is extensive and is increasing, and the establishment here of the iron works will tend greatly to the improvement of the place and of its climate. Its elevation is 1,400 feet above the sea.

Kumaon in the Himalayan range differs like Gurhwal from those parts of the Himalaya which lie to the north-west of the sources of the Jumna : here there is no country like Cashmere, lying beyond the first of the snowy ranges of the Himalaya, possessing an admirable climate, and protected by the mountains, that form its southern limit, from the influence of the periodical rains of India. In Kumaon the temperature as we ascend diminishes 1° for about every 400 feet of elevation. At 5,500 feet above the sea, the mean annual temperature is about 59° ; at 6,500 feet about 56.2° ; at 7,500 feet about 53.7° . The mean temperature of the hottest month at an elevation of 6,500 feet, is about 67.5° , and that of the coldest month about 44.5° .

Khas Mehal of Rhotas would probably form an excellent small convalescent depôt. Mr. H. D. H. Fergusson, the Commissioner of the Patna division, has been directed to make arrangements for obtaining a series of careful observations on the locality : he has been told to furnish particulars as to the means of approach to Rhotas and of improving it ; the supply and quality of water obtainable ; the sites that may be suited to, and the materials available for, the construction of military

buildings; the nature of the soil; the general features of the country around; the direction of the prevailing winds; and such other matters as may seem to be deserving of notice.

Khuttuck Hills.—The Chief Commissioner of the Punjab dissents from the proposal to establish a permanent Sanitarium on the Khuttuck hills, and still more to a temporary arrangement, inasmuch as time would not admit in the latter case of proper measures being adopted for the accommodation and security of the troops. If 400 sickly men were sent up, at least 600 more soldiers would be required for their protection. To these numbers must be added perhaps a couple of thousand camp followers.

Khyrum in the Jynteak Hills is of considerable extent, measuring fifty-five miles from north to south and eight from east to west, or 440 square miles, and contains within its limits some of the best lands that are to be met with in these hills.

Landour in Mussoorie possesses a climate infinitely superior to the best that is known in the plains of India; and though its influence is unfelt in cases of organic disorders, it does give the greatest relief to those who have been prostrated by illness in the plains, and brings about recovery in numberless cases which would otherwise prove fatal. It is distant about 150 miles from Meerut. There is a small perennial stream in a valley to the north of Landour, from which water might perhaps be brought by a canal carried round the side of the hill to a point much nearer the level of the hospital than that of the spring under the bazar. This stream and line might be examined. The elevation of Landour is 7,600 feet. It is not practicable to make any decided improvement on the Landour dépôt as it stands now. The better plan would be to remove the Sanitarium wholly from its present site, and to replace it by entirely new barracks in a different situation, on the *northern face* of the same hill. Water is very distant and consequently very costly, besides, not being always perfectly pure when brought in bags to the barracks. Fuel too is very distant, and much more costly therefore than it would be in a more favorable position with respect to the forests.

Logoo Hill, 25 miles from Hazareebaugh, at its highest peak is calculated at 3,472 feet above the sea level. At an elevation of 3,000 feet, there is a platform of sixty acres of level and good building ground, comparatively free from rock, and above this again, on the very summit of the hill, Captain Thompson found sufficient space for six bungalows. Water seems tolerably plentiful and is pronounced good. The hill is surrounded by dense

jungle extending for miles, and that must render its approach unhealthy, except in the cold season.

Lohoo Ghat is situated in a valley on the north side of the Kanadeo range, which is in fact a continuation of the Gagur, at a distance of about 28 miles from the foot of the hills at Burmdeo. It lies about 10 miles to the west of the Kalee or Sardah River, which separates the British territory from the Nepaulese province of Dotee. "The station," says Major Madden, "occupies a pleasant tract of grassy undulating ground, sprinkled with Deodars, and the very neat and English looking houses and grounds of the European residents. It is calculated to be 5,649 feet above Calcutta. The granite of Chhimpawut here disappears, and gives place to blue clayslate in vertical strata with some quartz. The ground rises gently towards the north, and at about three miles distant is backed by the grassy saddle-back mountain called Sooce in maps, but by the Natives Jhoom. The height of the summit of Jhoom is 7,100 feet above the sea. The peak of Kanadeo rises to 7,240 feet. The pass below Kanadeo on the road to Burmdeo has an elevation of 6,450 feet." The site is not however a really eligible one for European Troops. As a Sanitarium for invalids the elevation is undoubtedly too little, and the temperature too high, and the same objections hold good against Lohoo Ghat as a permanent station for European troops. The chief objection, however, to Lohoo Ghat as a station for European troops, is its inaccessibility from the plains. Lohoo Ghat is 5,600 feet above sea-level. The present cantonment is small, and only sufficient for a Native regiment, but there stretches from the western boundary towards the north, a fine open sloping grassy plain, on which barracks for 1,000 Europeans might be erected. Along the southern and western boundaries there are streams affording excellent drinking water and good bathing. A range of hills about 400 feet high encircle the station on the north and east, and a still higher range closes the view to the south.

Longwood in Landour would be an admirable site for a large barrack.

Lylancot, a village within the Moleem territory. Elevation is 5,703 feet above the sea; there is a fine table land free from jungle; the soil is of fair quality for a hilly country; and the climate which is far preferable to that of Cherra Poonjee being much less humid, is very healthy and apparently well suited to the European constitution at all seasons of the year.

Mahadeo Hills are situated as the crow flies, about 45 miles north-east of Chindwara, but the shortest route must make the travelling distance about ten or twelve miles more. They rise

almost perpendicularly out of a plain, about the same level as the town of Chindwara. This table land is of very difficult natural access on all sides. The ascent from the south-east, or the point nearest to Chindwara, is by a pass known as the Tara Ghat, which does not admit of the passage of beasts of burthen. The climate of this favored spot is admirably calculated to fit it for a Sanitarium and place of resort in the hot season for persons living in other parts of the Nagpore territories, or in the valley of the Nerbudda. Elevation is somewhat more than 4,000 feet above the sea. Some small streams of running water intersect the table land; and from the structure of the country water would probably be found at no great depth every where throughout the range. The village of Puchmuree is situated about 4 miles from the southern edge of the range. The whole range is formed of sandstone of every degree of hardness, which would be an abundant and cheap building material; and there is abundance of various kinds of timber trees, among which the Sal tree is conspicuous, at the foot of the range. There is a small seam of coal, of no value, however, in the bed of the nullah, where the road crosses from Muthoor; and the shales in contact with it abound with the fossil remains of vegetables.

Mussoorie.—A new road has been opened to this place from Rajpore with a branch to Landour. It is distant 52 miles from Simla by the grand Thibet road. The station may be said to extend now from near Jorapanee, that is the half-way point on the Rajpore road on the east, to Clouds-end beyond the park, on the west,—a length of about 9 miles. In the lower or Jorapanee portion, there are broad rounded spurs; in the centre part opposite the Landour bazar the ridge is narrow; beyond that there is a spreading but very strong craggy hill called the Camel's Back, ending at a neck of land on which the Mussoorie bazar and library are situated. Thence the range widens, throwing out spurs to the south and north (the latter a broad one including the Waverly Hill,) from the main ridge, which ceases at Clouds-end, bastioned as it were by a hill called Benog, on the north, and Budraj on the west. Every bit of ground in Mussoorie has been taken up, and almost every available site has been built on. In the centre part of the station the houses are crowded together nearly as closely as they can be. The altitudes of the different points of the Mussoorie ridge have a considerable range from 500 to 1,500 feet below Landour. The average may be said to be about 900 feet lower than Lall Tibah, the highest point of Landour. Mussoorie is purely a civil station, or rather European municipality, resorted to principally by families of the Anglo-Saxon residents of the plains of the North-Western

Provinces, and officers of all services on leave, including military officers not attached to the depôt. The slopes and all but the actually precipitous hill-sides should be terraced, and made to produce food for the community, and thus cheapen supplies and render such Sanitaria less dependent on the plains.

Muthoor.—A Sanitarium here will be extremely valuable both to the European troops at Jubbulpore and Saugor, and to the neighbouring community at large. These districts are so far removed from the sea, as well as from the Himalaya and the Neilgherry Hills; and the difficulties of travelling at certain seasons of the year are so great, that a Sanitarium within reach would be an immense acquisition. Muthoor has the advantage of having more space for a Sanitarium than Puchmurree; but one objection to it is, that thousands of pilgrims annually pass through the place which is holy in the eyes of the Hindoo, and they almost invariably bring cholera with them; and last year hundreds died of it. There is a long, steep, and difficult rocky ghat, with one or two other considerable ascents and descents leading eventually to the top of a range of hills running east and west, on which Muthoor is situated. The road though very bad is practicable for camels and other beasts of burthen; but no wheeled conveyance can come further than the halting place at the foot. Muthoor was once a flourishing village, but there are now only 3 or 4 miserable huts. The elevation is as follows:—

Muthoor above Chindwara	... 1235·7 and 3297·0
And the Sanitarium above Camp	203·7 and 3500·7

Myne Pat, near the valley of the Soane, a magnificent plateau giving upwards of 200 miles of table land with an elevation estimated at 3,700 feet above the sea, well watered by numerous streams. It would afford numerous sites, pleasant and salubrious, on extensive clearances being made; but its very remote position and inaccessibility from the want of good roads, render it at present useless.

Noormai Poonjee.—One advantage that Noormai Poonjee possesses over Cherra Poonjee is, that the rainfall is very much less at the former place. From observations taken during the three months of April, May, and June 1860, it was found that the fall of rain at Noormai was only 50·00 inches, while at Cherra Poonjee it was 259·35.

Norvet a village in the district of the Cossiah and Jynteah hills.

Nontrodien, ditto.

Nunklow in the Cossiah Hills.—A district with a population

of about 8,000 souls. The highest ground is to be found about Myrung, the bungalow at which place is 5,537 feet high.

Nynce Tal Gagur in the N. W. Provinces. Elevation of the peaks, exceeds 8,000 feet. The portion of the Gagur which lies to the west of Cheenur, of which the principal peaks are Soonchulia and Budhan Dhoora, is a magnificent range of mountains; but it is very deficient in water, and it is not easy of access on account of the doons and the ridges of low hills which separate it from the plains. It is only when we approach Kala Dhoongee, where the present road to Nynce Tal begins to ascend, that we get rid entirely of all doons and other obstacles. The Nynce Tal Gagur may be said to rise straight out of the plains. East of Nynce Tal the Gagur begins to recede from the plains. The average elevation of the range remains nearly the same. The Sutchoola peaks, about ten miles from Nynce Tal, are nearly twenty miles distant from the plains; and we may consider this to be about the eastern limit of the tract which is likely to offer the most suitable situations for sanitary establishments for European troops.

Parisnath Hills.—Vide Jhool Hill, Chendwar Hill, Logoo Hill, Bacazai Hill, Mynce Pat, and Jameera Pat, also page 161.

Peshawur.—A Sanitarium in the range of hills between Peshawur and Kohat would be advantageous, for the climate is not insalubrious for adult Europeans: during 8 months of the year the temperature within doors is never excessive. There are but 4 unhealthy months in the year, and of these, during two, *viz*, September and October, the weather is usually cool. The soldiers who mainly suffer from the climate, are those of the Native Infantry, mostly Hindoos from Oudh.

Peshawur Sanitarium in the valley opposed on military and political grounds.

Pomriang in the midst of the Khyrum territory—elevation 4,748 feet, and the ground in the neighbourhood undulates so gently that carriage roads might easily be made all round about it and carried on to some distance without meeting with any ravines or sharp declivities. There is a nice stream of water just close to where the house stood, and not being far from Shillong, where it is proposed to establish a European Sanitarium, it is one of the most desirable sites for colonists to locate themselves on that could be found.

Puchmurree.—A station here would be extremely valuable both to the European troops at Jubbulpore and Saugor, and to the neighbouring community at large. These districts are so far removed from the sea, as well as from the Himalaya and the Neilgherry Hills; and the difficulties of travelling at certain

seasons of the year are so great, that a Sanitarium within reach would be an immense acquisition. The height of the highest peak is about 5,000 feet above the sea, but the best building sites are from 3,500 to 4,000 feet above the sea. The climate of Puchmuree resembles closely that of Saugor or Jubbulpoor, with probably a few degrees more cold in the cold weather, and colder mornings throughout the year; a few inches more rain during the monsoon, and perhaps a few more showers during the dry months; differences which though very pleasant, are not sufficiently strongly marked to exert a very powerful or very rapid effect on an exhausted and impaired European constitution.

Rhotas Gurh too notoriously unhealthy for occupation.

Sargoojah Hill.—Nothing can be done at present, owing to its very remote position.

Seetapahar near Hazareebaugh.—Observations in regard to the temperature and rainfall during the year are about to be made, and report on the general capabilities of the hill as a depôt for convalescents from the neighbouring cantonments.

Sham Khet is a valley on the southern side of the Gagur, not far from the water-shed of the range, about 7 miles east of Nynce Tal: it lies near the point where the road from Nynce Tal to Bheem Tal meets the road to Almorah, and near the old line of road from the foot of the hills at Bhumowree to Almorah. The height of the valley above the sea is about 5,600 feet. There is a considerable extent of level ground, the greater portion of which is now under cultivation. Except at its eastern extremity, the valley is almost surrounded with hills. There would probably be little difficulty in constructing a carriage-road to the plains.

Shear Kullan a range of hills near Peshawur—not an eligible site for a Sanitarium. Even its advocates admit that it will be necessary to fortify the position; but a fortified post is not a convenient nor a pleasant situation for sickly men. The buildings suited to such circumstances to be at all commodious, would cost a very large sum. The men would not be able to ramble about the hills with safety. The water is said to be only 400 yards from the ground, and that a tunnel can be made through it.

Sher-ke-Danda.—A large portion of this site is still available for building purposes. In some parts plentiful springs of water are found, and in other parts the distance from that essential element is not further than at Landour or Mussoorie. The hill is chiefly of claystone with occasional greenstone and limestone, and its slope is far from steep. It is covered with a fine forest of oaks, (*Quercus Incana* and *Quercus Dilatata*) with the usual

accompaniment of rhododendron and andromeda, &c. The crest of Sher-ke-Danda varies from 7,300 to 7,900 feet above the sea. The present houses are situated from 6,900 to about 7,300 feet. The range as it runs eastward attains to 8,200 feet at Luria Kanta.

Shillong, considered to be the most suitable locality in its neighbourhood for a sanitarium, is situated in the Cossiah Hills, about 30 miles north of Cherra Poonjee, and about 40 or 50 south by east from Gowhatty in Assam, at an elevation of 5,600 feet above the sea. The portion most suitable for a cantonment is to the west of the Shillong peak, and consists of a gently undulating country about two miles long by a mile in width. It will be necessary to locate a force of European soldiers at that place to remove all disquietude and anxiety from the minds of intending settlers. The maximum temperature in the month of August last was 74°, and on the 1st February it was 34° Fahrenheit. The hill of Shillong is upwards of 6,000 feet high; and as strong winds often prevail, it seems to the Superintending Engineer that small cottages, capable of holding ten or twelve men each, would be far better suited for the comfort of the Troops than a large barrack. Timber of sufficient size for roofs of cottages is to be had within a short distance of Shillong; and there is such ample space on the hill top, that a small plot of land could be spared in front or rear of each cottage for gardens. There are also many fine sites to the north end of the hill for building on, with land enough for small farms. It is strongly urged that even if the formation of a new station at Shillong be objected to, the road between Shillong and Gowhatty should still be constructed, since it would reduce the distance from Gowhatty to Cherra Poonjee from 105 miles to only 78. The present means of access to Shillong from Cherra are by the Assam road to Moflung—18 miles. The road is very good but too steep for wheeled carriages—the first two miles level round the village of Cherra, thence an easy slope upwards of one mile—the road is then level with slight exceptions to Kalapanee at the 10th mile, reached by a mile of descent—this is crossed by a good stone bridge. Beyond this after a slight rise, a steep descent leads to Bogapanee, which is crossed at the 15th mile by a native bridge for foot passengers. A bridge should be built here, as there is no ford by which horses can cross after rain. From this bridge a steep ascent, 1,500 feet in 2 miles, leads us to the top of the hill, and one mile further is Moflung, with a Government staging bungalow. The soil is a strong clayey loam, and very fertile, the Natives getting two crops a year with but little cultivation. The apple

and plum grow wild, and all the English fruits would thrive there. At the time the Superintending Engineer visited it, it was a perfect carpet of flowers: the blue Hare Bell and the yellow *Potentilla* mixed with the dark purple Larkspur, and the many-colored Balsams, were in great profusion, and many other English wild flowers. The temperature varied from 63° at sunrise to 73° at 4 p. m., which was the warmest time of the day, and he does not think that at any time during the months of July, August, and September, the thermometer ever stood above 74° in the shade. The quantity of rain which falls at Shillong when compared with the fall at Cherra Poonjee, is very small. In July, at Cherra, 160 inches of rain fell,—at Shillong only 17. In August, 140 at Cherra, and only 40 at Shillong. There would be no difficulty in procuring building materials. Stone can be procured close by in any quantity, and the soil makes very good bricks—lime and coal within 20 miles—slate at 10 miles. Timber for building would have to be brought up from the forest on the Assam side, distant about 20 miles. Bullocks and pigs are good and plentiful, but there are no sheep at present, although they would thrive with care. There is a large market at Yeodo, about 3 miles from Shillong, well supplied with cloth, rice, beef, pork, potatoes, dried fish, and spirits.

Siwalik range in British Gurhwal.—Here, as in many other parts of the Himalaya, the Siwalik range of hills often forms a distinct ridge of no great height, rising immediately above the plains, and separated from the principal chain by the broad flat vallies called doons. For several reasons there are not many spots favorable for Sanitaria in these hills. It may be confidently stated that between the Ganges and Kosee there are no mountains adapted for sanitary establishments for soldiers from the plains. This need not be regretted, because none of the stations for European troops are so situated that there would be any convenience in having a Sanitarium in British Gurhwal.

Sutchoola Peaks are situated on the Gagur range, about ten miles from Nynee Tal, nearly twenty from the plains; and we may consider this to be the eastern limit of the tract which is likely to offer the most suitable situations for sanitary establishments for European troops.

Thalmow Kulla between Sylhet and Assam, there are good lands to be met with here, and at elevations that would suit almost all sorts of constitutions and nearly every description of agricultural produce.

Ummur Kuntuk in Jubbulpore has passed from our possession,

but it is only the source of the Nerbudda that has, and this ought not to stand in the way of our making it a Sanitarium, if it is considered a better site than Puchmurree. It certainly would not be so convenient ; as to get at it, troops would have to carry their provisions.

Hospitals at Bheem Tal and on Cheemer have been recommended but are objected to because spots equally elevated and of a similar temperature are situated nearer to the central establishment of Kaila Khan.

Report on the route between Shillong and Gowhaty.—The third day brings the foot passenger to his journey's end. On leaving the table land, the path leads down a spur of about two miles in length, at the bottom of which there is a small stream called the Oomsirpee of about fifty feet width. This is crossed at a ford the water is seldom above knee deep. A bridge would here be required, but it need not be more than thirty feet span, as the stream above and below the ford is not more than about that width. The descent down to this stream may be set down at 500 feet. Then through the plain of Yeodo which is at least six miles long by three wide, and studded all over with villages, some of which are of considerable size. Passing through the village of Mowsera the path leads to Oomkraow, a stream of some size, over which a bridge would be required of two arches of not less than fifteen feet each. The distance between the Oomsirpoe and Oomkraow is about two miles, and the road between these two points could be reduced to a dead level without incurring much expense. A descent of 2,000 feet in a length of 4 miles brings you to the Oomean, and as it will with a very little engineering skill be quiet possible to diffuse the height to be attained equally over the whole four miles, the gradient of this part of the road, which will be the steepest throughout the whole line, will not exceed one in ten. No more high ridges are to be crossed in the direction of Gowhaty. The Oomean river varies in breadth from eighty to 100 yards, there would be no difficulty in throwing a bridge across it, as materials, both wood and stone are procurable close at hand. After passing by or through the villages of Nongkhorai and Nongioonee, the road would reach Nongfo, a village on the borders of this undulating country, which may be put down as fourteen miles distant from the Oomean River, or twenty-two from Shillong. After leaving Nongfo, the road should be carried along the side of a rivulet to the village of Nongkhra, and passing which, continue skirting the Oomling, leaving the Sangkhongbaro Hill to the west, at the foot of which it should cross the Oomling River, a stream

not more than twenty feet wide ; it would then have to be carried parallel to a small watercourse falling into the Oomling, then pass east of the Rungsakhee Hill and between the Nongkulla Hill and village of Oomdap, and so on down to Bornee Haunh on the banks of the Dibroo or Degroo River. On leaving the Degroo the road must be taken over the range of hills separating that valley from the plain of Beltollah. This range does not any where exceed 1,000 feet in height, and is not more than six miles across. After reaching the northern foot of this range, it is all level ground into Gowhatty.

Report on that portion of the Mountains which lies between the Ganges and Sardah Rivers.—Sanitaria in this part of the hills may be considered available for the military stations of Rohilcund, Oude, and the Doab below Meerut. Hill Sanitaria for European soldiers may be of two kinds ; those specially intended for invalids whose health has suffered in the plains, and those intended for the permanent cantonment of troops. Although the objects aimed at are different, we may consider so far as these mountains are concerned, that the local and climatal conditions which have to be fulfilled are in both cases almost the same. Within the actually accessible parts of the Kumaon and Gurhwal Himalaya, elevation above the sea is the only very important cause of variation of climate. It is true that on the ranges that immediately overhang the plains, the rainfall during the months of July, August, and September, is much heavier than it is in the interior of the province, nevertheless the actual differences of climate at similar elevations are not very great, and this is more especially true at elevations of 6,000 feet and upwards. Thus if we compare the Gagur and Binsur ranges, the former close to the plains, and in which Nynec Tal is situated, and the latter thirty miles nearer to the snowy peaks, we shall find at the same elevation, at the same season, little difference of temperature or even of humidity, although the quantity of rain that falls upon the Gagur within any given time may be much larger. The climate of Binsur during the rainy season is almost equally damp. In these mountains the quantity of rain is, as Dr. Hooker has observed, " little indication of the humidity of the climate ; for though in the interior valleys very little falls at elevations corresponding with those which are deluged on the outer ranges, the fogs and drizzle which prevail, and which are not measured by the rain gauge, sometimes obscure the sun's rays for many days in succession." With regard to general healthiness, it may be stated without hesitation that the experience of many years has shown that the outer ranges are in no way inferior to those that are more dis-

tant from the plains. Experience has shown that the best climate in these hills is to be found at elevations between 5,500 and 7,500 feet above the sea. Below 5,500 feet the climate is too hot in summer, while above 7,500 feet it is too cold and damp for a great part of the year. Altogether the most suitable elevation for the permanent residence of Europeans is from about 6,000 to 7,000 feet. Particular constitutions and particular diseases may require a colder or a warmer climate.

Report of Dr. Murray, Deputy Inspector General of Hospitals, Agra, on Sanitaria for European Troops in India. The position of the European troops that hold India is not a purely medical question; the situation of the cantonments *within a limited distance* being determined by strategic reasons. In all tropical climates European troops should *sleep at least 8 or 12 feet above the ground during the rainy season*. The influence of elevation above the level of the sea on the health of troops is generally in proportion to the height up to 8,000 feet, but this is modified by many local circumstances which render some situations more healthy than others that are higher; for example an elevation of 1,000 feet *on the sea coast*, from enjoying the cool sea breezes, will be healthier than an elevation of 2,000 in the centre of a jungly country, or in the uncleared valley of the doon, which is deadly. In Central India, Goonah is 1,800 feet above the level of the sea, rocky, undulating, dry, and healthy; whilst the neighbouring stations of Lullutpoor, Jhansie, and Oorai, that are only 600 feet lower, but surrounded by black spongy soil, are very subject to miasmatic disease. The *fall of rain* materially influences the salubrity of hill stations. The fall of rain in all the Sanitaria on this side of the Himalayan range, is great during the rainy season, generally upwards of 90 inches; but in addition to the rain the hills are enveloped in a dense fog, with few intervals, from the end of June to the end of September. The only *direct influence of elevation* that I could trace, independent of temperature, (and I lived for some days on the Thibet frontier, at an elevation of 17,000 feet,) was on the *respiration and circulation*. Moderate exercise caused difficulty of *breathing and palpitation*: it also caused *headache* in those who previously suffered from this complaint. The inhabitants are vigorous and strong, and in number proportioned to the extent of ground under cultivation. *Goitre* was the only indigenous disease; and I saw no miasmatic disease beyond the snowy range. There is a belt of jungle called the *Terai*, skirting the outer range of hills, in which it is dangerous to be detained at night, during the rainy season. The diseases to which children and habitual residents are liable, are inflammatory affections of

the *chest* and *throat*, rheumatism and *bowel complaints*, similar to those found in Europe, with occasional relapses of the diseases from which they had suffered in the plains. An elevation of 4,000 feet appears sufficient to escape from tropical diseases, but a higher elevation up to 8,000 is more invigorating and tends more to restore a weakened constitution. The objections to the hill stations are the limited space available for parades, exercise, and amusement, and the difficulty and expense of getting vegetables, extra articles of food, water, and Native servants: these are important points to steady married men.

TENASSERIM AND MARTABAN FORESTS.

1858-60.

India Records, No. XXIX.

THESE Forests are placed under the control of the Maulmain Forest office except those in the Martaban Provinces situated in the valley of the Sitang River, which are united with the Pegu Forest group. The preliminary survey made during 1858-60 comprehends the whole of the Forests in the Maulmain section of the Forest Department, with the exception of the Upper Thoungyeen Forests above the mouth of the Meglar. With reference to the description of the Teak localities, the following general results may here be recorded: The total area surveyed has been 20 and 6-10th square miles, and on this area 83,499 green Teak trees were counted, of which 21,532 were of the first class or in girth above 6 feet. The entire area of the Teak localities under the control of the Maulmain Forest Office is estimated at 552½ square miles, not including the Thoungyeen Forests above the Meglar, and the number of first class trees estimated to stand on this area is 4,33,800. The Upper Thoungyeen Forests, by all reports the richest on that river, are not likely to contain less timber than the middle Thoungyeen Forests. This would give upwards of 4,85,880 as the probable figure of first class trees in the Government Forests of the Tenasserim and Martaban Provinces. The Beeling Forests are some of the richest Teak Forests known in these Provinces. In one instance, on the 16th February (in the Magwine Forests) Mr. Barker counted 2,326 first class Teak trees on an area of 70 acres, or at the rate of 33 trees per acre. The average of the tracts surveyed was 8,900 first class Teak trees on the square mile, or nearly 14 trees per acre; 15 first class trees on an area of 10 acres is the average in the whole of the Forests hitherto surveyed. The

Teak localities in the Yoonzaleen Valley form several isolated tracts on level or slightly undulated ground, of which the Tsintsouay Forest on the west side of the river, and the Papoon or the Mithro Forest on the east, are the best. The Doomdamce Forests are the nearest Teak Forests to Maulmain, stretching down as far as Phagat about 32 miles from the Town. They consist of two divisions, the Upper and Lower Forests. The Teak localities of the Upper Salween Forests cover a considerable proportion of the ground, about one-eighth of the total area in the south part as far as Tsolaidoe on the Maythawuk river, and about one-fourth north of that place. On this supposition is based the estimate of the extent of the Teak localities of the Upper Salween, 10,625 square miles.

The average number of first class trees on the square mile in the Upper Salween Forests is 550. A few localities are richer, but none contains Teak trees as densely stocked as either the Upper Doomdamce, Beeling, or Yoonzaleen Forests. Of the Government Forests in the Tenasserim Provinces, only those on the Thoungyeen and its feeders are of any importance. The Houndrou Forests are now it appears of very little importance, they are widely scattered tracts, themselves only thinly stocked with Teak. The Thoungyeen forests number 80,000 total available trees. The working of these forests is a tedious and expensive operation, on account of the great distance over which the timber has to be floated before it reaches the Salween. A large portion of the area of the Tenasserim and Martaban Provinces is occupied by mountain ranges attaining and exceeding an elevation of 3,000 feet. Now, although on the hills east of Toungoo and near the Kaymappyoo Choung, south of the Karenee country, Teak is found to ascend to an elevation of 3,000 feet; this is not the case lower down near the sea shore, where the hills are exposed to the south-west monsoon and are covered to a much greater extent with dense evergreen Forests which only rarely admits of Teak. The financial results of operations in these forests are :—

				1858-59.	1859-60.
Receipts	...	...	...	71,606 0 0	44,090 0 0
Disbursements	...	...	...	61,321 3 0	24,748 2 0
Net revenue realized	...	...	...	9,734 13 0	19,341 14 0

The aggregate revenue likely to be realized in 1860-61 is estimated at 89,000 Rupees. In the Thoungyeen Forests the operation of girdling trees was placed under a nominal Government superintendence. From time to time orders were issued for the girdling of a certain number of trees in girth above $3\frac{1}{2}$ cubits or 5 feet 3 inches, but the selection of the trees to be girdled and the time of girdling was left to the Karens. The operations which ought to be carried on for the improvement of the Forests are—

1st.—Freeing Teak trees from Creepers.

2nd.—Clearing away trees and bamboos standing too close to young Teak trees and injuring their growth.

3rd.—Clearing the ground round young Teak trees to protect them from the jungle fire.

4th.—Clearing the ground from around seasoned timber to prevent its being reached by the fires.

TENASSERIM AND MARTABAN FORESTS.

1860-61.

India Records, No. XXXV.

Dr. Brandis gives in his Second Annual Progress Report.

Martaban.—The probable yield of the Beeling Forests was over-rated in the first report. Estimated at 81,000, a survey shews there are not more than 15,000 teak trees. The bringing out of timber from the forests is done entirely by means of Permit-holders, who become the owners of the timber on their paying a certain amount per log as purchase money to Government. Twenty forest Permits had been issued for 1860. These Permit-holders brought away from their forests 11,714 logs, of which 11,088 were in girth above 4' 6"; 960 logs more are left in the forests, making a total of 12,674 logs as the yield of the Permit system during the first year of its working. The total payments amounted in two years to Rs. 78,364, or at the rate of Rs. 6-3 per log, or adding Rs. 2-12 per log as duty on full-sized timber Rs. 8 per log, which Dr. Brandis pronounces very satisfactory. The Yoonzaleen Forests yielded 400 logs, and the Upper Salween Forests, 1,699 full-sized and 40 under-sized logs, and 560 logs more are expected from the Upper Salween. The revenue realised was Rs. 11,746. The Doondamee and Lower Salween Forests yielded 1,280 logs and Rs. 5,128-12. These three Divisions are

all in Martaban and yielded in all Rs. 17,074-12, of which Rs. 1,075 were Permit Fees and the rest purchase money.

Tenasserim.—The 4th, 5th and 6th Divisions containing the Thoungyeen, Honadeow, Hlinelay and Attaran Forests yielded Rs. 61,290. The total number of Permit-holders was 12. The annual yield of the Maulmain Forests is estimated at 9,000 trees.

Financial Results.—The general financial results of the last three years, since the forests of the Tenasserim and Martaban Provinces were placed under Dr. Brandis' charge, show a steady and considerable increase of surplus:—

		Receipts.	Disbursements.	Surplus.
		Rs.	Rs.	Rs.
1858-59	... ..	71,606	61,321	9,734
1859-60	... ..	44,090	24,748	19,341
1860-61	... ..	86,059	12,728	73,335

“ Even those who make it their duty to cry down the Forest Department as a burden to the State, and all plans of forest conservancy as a ruinous waste, must acknowledge that this result is not unsatisfactory.”

PEGU TEAK FORESTS.

1860-61.

India Records, No. XXXV.

THIS Report closes the first five years of Dr. Brandis's administration. The general arrangement of the forests has remained unchanged, with the exception of the Shaboung and Shwoaylay Forests having been added to the Tharawaddy District during the year. The Choungoungyee Forests abound in large specimens of the Kokoh (probably a species of *Albizzia*, not *Dalbergia*, as formerly supposed) and Padouk (*Pterocarpus Dalbergioides*). Specimens of the former were measured 15 feet in girth, and with a clear stem from 80 to 100 feet high; the wood is dark red, and much prized for cart-wheels and boats. The Swah Forest north of Toungoo consists of three great divisions, the *Swah* Proper to the south, the *Loonyan* in the middle, and the *Thine* in the north. These three streams together

drain an area of about 700 square miles ; but the Teak localities cannot be supposed to cover more than one-tenth of this space, if so much. We have no better means of estimating the number of first class trees. Reckoning 1,000 to the square mile, there would be 70,000, which may be taken as a vague guess. The Myohla and Dounlangya Forests are situated along several small streams, and the Bimbyaih and Gwaythay Forests are on the east side of the Sitang River. The Teak localities are of limited extent, and surrounded on all sides by hilly ground covered with Eing (*Dipterocarpus*) Forest. The growth of the timber in these forests is magnificent. The stems are tall, clear of branches, and cylindrical. Under careful working, these forests should yield chiefly pieces of from 50 to 80 feet in length. The *Koonoong* Forest is far more extensive than either the Gwaythay or Bimbyaih, and the trees are of excellent growth, but not of any extraordinary height.

The total amount of timber brought down from the Government Forests this year was 13,947 logs, or 9,997 tons. Of this timber Permit holders brought down 1,179 logs, or about 1,000 tons ; Forest Contractors and Government Agency, 12,768 logs, or 8,997 tons. The expenditure incurred in the purchase of Elephants and cattle was 21,560 for 40 Elephants and 10 Bullocks. The check which the forest operations in Pegu suffered in 1858, when the greater part of the Elephants introduced into the country since 1856 were sold for export to India, was at length overcome. The canal which affords an outlet for timber from the Shwoaylay and Shaboung Forests was completed on the 26th May 1860, at a cost of Rs. 4,819. Its length is 7,340 feet, top width 24 feet, and width at bottom 12 feet, with a depth varying from 5 to 6 feet, and a fall of 10 inches in 1,000 feet. The Shwoaylay Forest, if well worked, ought to produce 1,000 logs per annum but difficulties have arisen with the Deputy Commissioner of the district in which the Shwoaylay Canal was dug, with reference to damages done and alleged to have been done by the Canal, and have delayed the execution of other works of a similar nature. The blasting of rocks to open out streams for the floating of timber has been commenced, and the results have been satisfactory. The second work was the opening of the Shawdoong Choung, a tributary of the Koonbeeling Stream, which is proceeding satisfactorily. The next was the Mhya Choung, a south tributary of the Northern or Kadim Branch of the Beeling River and a few minor obstructions in the Thoonzay Choung and its tributaries were blasted in May. The importance of these blasting operations can scarcely be overrat-

ed. If steadily carried on, they will gradually open out the real treasures of the Pegu Forests, doubly valuable because hitherto almost untouched.

Financial Results.—The total expenditure incurred during the year on account of the clearing of forest streams was Rs. 9,956, together with Rs. 360, contingent expenses of the blasting operations, total Rs. 10,316. The clearing of roads in and to the forests cost Rs. 3,570, of which Rs. 2,222 was expended in clearing a road $15\frac{1}{2}$ miles long and 30 feet wide, from Myodwin to Ymatheyah on the Meimaka River 1,728 were expended at Myodwin, and Rs. 4,182 at Rangoon, for the making and purchase of dragging harness, timber carts, saws, boats, tools, and stores generally required for the working of the forests. The formation of the Station of Myodwin cost Rs. 967 for the clearing of jungle, and Rs. 7,425 for the erection of houses for the accommodation of Assistants. The amount of general timber expenses in the Myodwin Section of the forests will next year considerably decrease. It is extremely difficult in this country to obtain men fit for the work required, or even sober and of good reliable character; but it is more difficult to secure the services of men whose constitution is proof against jungle fever. At the Rangoon Timber Depôt, 545 logs, 20 feet long and containing 262 tons of 24 different kinds, were collected, and arrangements were made for bringing up the stock to upwards of 1,000 tons. The number of logs sold this year was 8,834, with cubic contents of 6,875 tons. The amount realized was Rs. 2,21,975. The average amount realized was per log Rs. 25-2, per ton Rs. 32-4. The average size of Pegu timber is not likely to equal the present average size of the foreign timber imported into Maulmain.

The Forest Revenue of 1860-61 was as follows :—

	Rs.
Sale of timber on account of 1859-60, 1860-61 ...	2,29,931
Purchase money of Permit timber ...	7,753
Permit fees ...	5,681
Miscellaneous Revenue ...	7,560
Total of Revenue ...	2,50,925

The supply of timber from the territory of the King of Burmal this year considerably increased. The amount was—

	From the Irrawaddy River, passed at the Meaday Custom House.	From the Sitang River, passed at the Toungoo Custom House.	
	Logs.	Logs.	Logs.
Round timber, loozars, doogies, and mast pieces	6,125	1,316	7,441
Converted timber (mostly planks)	4,864	12	4,876

The revenue on this timber is not levied by the Forests, but by the Customs Department. During the year girdling operations were carried on in the Sitang Forests. The plan, which had been partially executed, was to complete the six years' rotation by girdling in the whole of the West Sitang Forests.

To ensure the preservation of the forest, a portion of the first class trees must be left on the ground to shed seed and to prevent the encroaching of other jungle, and then the girdling operations must be regarded as the main duty of Forest officers. Those officers are not likely to perform with zeal a laborious operation in which they have no interest while the Permit holders would probably in any case be discontented with the work when done. If Government is really determined to preserve the Teak in the forests, then the best safeguard against the tide of public opinion will be to sell outright one portion of the same, including the right of girdling, and to concentrate the operations of conservancy on the remainder. The Kokee Forest, east of the Village of Ioben-Ein, in the Tharawaddy District (Shaboung), was in 1857 one of the finest forests in Pegu. The Teak plantation at Prome is reported to be in a very good and prosperous state.

Appended to this Report is *Correspondence Regarding the Opening of the Pegu Forests to Private Enterprise*. The question was raised by Mr. W. Wallace of Rangoon who asked to be allowed to work the Hline Forests at once. After much discussion between Dr. Brandis and the English and Native merchants of Rangoon, the Government of India finally consented to open some of the forests in the following proportion :—

		Square miles of area.	First Class trees now standing.	Estimate of trees that may annually be removed.
In forests to be opened	...	940	7,33,400	17,259
In forests retained	...	915	7,97,760	13,967
		1,855	15,31,160	31,226

Government thus does not risk the whole of the forests, until the possibility of maintaining a conservancy, sufficiently effective for the perpetuation of the Teak tree in combination with the admission of private enterprise, is effectually tested.

THE GEOLOGICAL SURVEY OF INDIA AND MUSEUM OF GEOLOGY.

1861-62.

Annual Administration Report.

THE Report is furnished by Dr. T. Oldham, Superintendent. The Survey worked with diminished numbers, which affected progress all over India.

Bengal.—Subsequently to the close of the field season in the plains in 1861, Mr. William Theobald and Mr. F. Mallet were deputed to visit Chini and the Spiti Valley in Kunawur, with a view, as far as possible, of procuring a good series of the very interesting fossils there occurring, and of tracing out the succession of these beds in that district. These rocks are obviously a continuation of those which occur to the north of Kumaon at Niti, and which had been visited by Mr. Mallet in 1860. A very fair series was procured from the Spiti Valley representing

both the Mesozoic and Palæozoic groups. Mr. Henry B. Medlicott steadily continued his examination of the outer ranges of the Himalaya, and carried up his work to the borders of the Jumnoo Country and the Maharajah of Cashmir's Territory. This gives a range from the River Ganges at Hurdwar up to the Ravee of about 200 miles. Of the country to the east of the Ganges at Hurdwar there are as yet no trustworthy maps to work with. The examination of the country adjoining the Rewah Territory and (in part) of Rewah itself, was continued and a large area completed. A careful Survey of the Rewah Territory having been ordered by Government to commence from next cold season, no more detailed investigations were carried out in that country than were essential to connect the Sections in the Jubbulpore and South Rewah Country with those more to the north in Mirzapore, &c., all closer detail being reserved for future examination, when a map sufficiently accurate for record of the work may be available. Our knowledge of the alluvial deposits was carried on along the southern portions of Behar and Shahabad through Mirzapore, and as far west as Tirhowan or Kirwee, and the country south of the Ganges and Jumna to this parallel, as well as that north of the Ganges below Allahabad completing, so far as the alluvial deposits are concerned, Sheets 102, 103, and the southern portion of Sheet 88 of the Indian Atlas.

Madras.—The Madras party of the Geological Survey of India was engaged in carrying on the examination of the districts of Cuddapah and Nellore, as represented on Sheet No. 77 of the Indian Atlas, and in completing that portion of Salem and North Arcot, included in Sheet 79, which remained unfinished at the commencement of the season. This latter Sheet was completed, and including both the highly interesting fossiliferous districts of the Cretaceous rocks of Trichinopoly, &c., and a large portion of the very valuable iron deposits of Salem and adjoining districts, cannot fail to be of much practical utility. The working out of these iron beds in detail proved rather more tedious than had been anticipated, as well from the closeness of examination required as from the difficult nature of the ground where they occur. The extension and continuation of these beds into the Javadie Hills to the north remains to be traced out. This work was entirely in Mr. Foote's hands. Mr. C. Oldham and Mr. King were actively engaged in Cuddapah District. The country is in many places very inaccessible and without roads, the map in parts exceedingly deficient in detail and accuracy. During 1861 about 2,500 square miles had been examined, including all the country in the north-west of Cudda-

pah and the Ellaconda Mountains (the Hills separating Cuddapah and Nellore Districts); and since the resumption of work this year the examination of the adjoining country to the extent of about 1,000 square miles in Nellore, extending along the eastern side of the Ghats, and of about 1,200 square miles in Cuddapah, has been completed, making in all more than 4,500 square miles examined up to date, an area which, considering the nature of the country traversed and the detail of the structure, the Superintendent considers highly creditable to those engaged.

Lectures at Madras.—During the rainy season there one of the Assistants of the Geological Survey, Mr. Bruce Foote, delivered in Madras at the College of Civil Engineering a course of lectures on Geology which proved highly successful. Of the Engineering Students who were obliged to attend (but who formed only a small portion of the audience) 48 came up for examination afterwards and 20 passed, many of them with very marked success, 137 marks out of the total of 150 having been attained. This progress was considered highly satisfactory; and at the request of the Madras Government, on the recommendation of the Principal of the College of Civil Engineering and of the Director of Public Instruction, arrangements have been made for the delivery of another course during the present year. These lectures, being delivered during the season when field work is impracticable, do not interfere with the general progress of the Survey, while they proved not only valuable to the Students, but very interesting to the public, who attended in considerable numbers. Dr. Oldham desires to see such lectures established in Calcutta. The Assistants aided largely in the arrangement and classification of the Mineralogical and Palæontological collections of the Madras Central Museum.

Pegu.—The labors of the Survey party in Pegu were directed to the examination of the country adjoining the previous year's work in Henzada District. That portion of the Bassein District which lies between the Ngawoon or Bassein River, and the range of the Arracan Hills was explored, together with a considerable tract lying to the east of the River in the neighbourhood of the towns of Bassein, Ngapootan, and Myoung Mya. Opportunity was also taken to visit the Alguada Reef and Diamond Island. Contrary to expectation, it was found that considerable tracts of rock, and of subrecent formations, distinct from the true delta alluvium, occur within the delta of the Irrawaddi River. How much of this immense area may be occupied by such rocky masses is as yet unknown, and they may extend over the whole of the wide space intersected by the channels of

the Irrawaddi and Sitang. In any case it will be essential to devote much more time to the investigation of this area than was estimated under the supposition that, being all of the ordinary delta alluvium, a cursory examination would suffice.

Publications.—A valuable report on the Raneeunge Coal Field by Mr. W. Blanford with a detailed map on the scale of one inch to the mile, of that very important field, and general statistics of the outturn of Coal for all India for the years 1858, 59, and 60, was issued in August. The first series of plates and descriptions of the magnificent series of fossils obtained during the progress of the Geological Survey was issued; containing, in 25 quarto plates and accompanying letter press, figures and descriptions of all the Nautiloid Cephalopoda from the Cretaceous rocks of South India. And subsequently the first fasciculus of the second series of these fossils appeared. This second series embraces the most remarkable and interesting group of fossil plants from the Rajmahal Hills, and will be continued regularly every three months until completed. The detailed Report on the Cretaceous Rocks of South India, drawn up by Mr. Henry Blanford, was ready. Dr. Oldham remarks that it will be essential that some systematic mode of publication of the Indian Atlas Sheets with the Geological lines shown on them should soon be adopted, as already there are several of these ready for issue. During the year a series of Geological Maps, sufficient to shew the amount of detail with which the Survey is carried on and the area already examined, were prepared and forwarded to the great Exhibition in London. With these a good series of large sized specimens (cubes of one foot and more) of all the principal coals worked in Bengal were also forwarded, which will give a fair representation of Indian Coals. A full series of the Cretaceous fossils described in the *Palæontologia Indica*, were also forwarded. During the year above five hundred volumes or parts of separate works were added to the Library, of which a very large proportion was presented by various Scientific Institutions and Societies.

Museum.—The survey was not working in fossiliferous districts, hence the additions to the Museum were small. From the Spiti Valley and adjoining districts, there was obtained by the exertions of Mr. W. Theobald and Mr. Mallet a very interesting series of fossils from both the secondary and older rocks of that neighbourhood; also some tertiary fossils from the neighbourhood of Dugshai and Subathoo. Mr. W. Blanford procured some good specimens of *Mastodon*, *Elephas*, *Deer*, &c., and some very remarkable novelties from the Irrawaddi Valley. To Dr. A. Fleming the Museum is indebted for a series of *Palæozoic Brachiopoda*

from the Salt Range, valuable as having been identified and named by Mr. Davidson who has recently described these fossils. Mr. W. S. Atkinson presented a small series of fossils from near Cherra Poonjee. The Petrological collections were enriched by many good specimens—among others a good, although not very numerous, series from the extinct Volcano, Puppa Mountain, in Burmah, collected by Mr. Blanford during a recent visit. The Laboratory was of much use. Mr. A. Tween, Curator of the Museum, carried out assays or analyses of Coals (33), soils (7), Iron-Ores (18), Limestone (9), Water (7), &c., &c., and the results thus obtained, in many cases, proved valuable. Collections of duplicate specimens of fossils, &c., were forwarded during the year to the Madras Museum, and a series waited an opportunity for despatch to the Kurrachee Museum.

ADMINISTRATION OF PORT BLAIR.

1861-62.

The Convicts.—The number of convicts diminished from 2,202 to 1836 of whom 145 were females. The convict population behaved quietly. One serious offence alone was committed during the year, the murder of one convict by another. The number of escaped prisoners was only 21, against 178 in 1858, 158 in 1859 and 43 in 1860. The class of men who take to the jungles continued to be the same, *viz.*, those who in India subsist by plunder rather than labor: The Bengal dacoit, the Bheel or Mahratta dacoit, and the Puthan adventurer of the Deccan. The diminution in the number of escapes this year, notwithstanding that the number of new comers was greater, would seem to show that experience is beginning to tell. The instances in which any remain at large and alive are probably very few. Two females deserted with their husbands. In one case both were probably killed, and in the other both returned. Eighty-nine male life convicts married 89 female life convicts during the year, making a total of 97; but of these 11 were separated by death. Of the entire number, 12 males support themselves and their wives; 31, though laboring for Government, support their wives; 43, together with their wives, labor for the Government. The cases of complaint against the females were surprisingly few. 297 convicts supported themselves against 284 last year. The protective force was

diminished, the Naval Brigade from 150 to 110 Rank and File. The Sebundy corps was dispensed with and in their place 50 of the best behaved short term convicts were armed. The Bombay navy vessel of war was removed and the *Lady Canning* with a small native crew took her place.

The Settlement.—Clearing was not much extended. All the salt used is supplied on the spot. The manufacture of sugar is likely to be successful. The entire value of Settlement produce other than cattle sold during the year was Rupees 3,765-13-10 against Rupees 1,893-2-10 last year. For neither year is the value of articles consumed for Government purposes (amounting this year to Rupees 460-13-3), nor the stock remaining in store at the end of the year, included. In addition to the above, 12 tons of Bullet wood, valued at Rupees 600, were supplied to the Arsenal, Fort William; 500 tons of coral were shipped to Calcutta either for the use of the Department of Public Works, or to be sold by auction. The value of the whole at the rate at which part was sold by auction would be Rupees 8,000. An agreement was entered into with certain Burmese conceding to them the right to collect cocoanuts on the Cocos Island for one year, in consideration of their giving one-fourth of their collections. The monopoly of the edible bird-nests on the Andaman Islands was granted to a Chinese for a period of two years for the sum of Rupees 3,200 annually. Buildings were erected and repaired. The arrivals of ships during the year were 45 with a tonnage of 21,498, the departures 46 with a tonnage of 21,990. Of these 19 were steamers.

The Health of the Settlement was good. The mortality among the convicts was 15 per cent., an increase of 1 on the previous year. The rate of mortality is high, but still lower than that of fourteen Jails in Bengal in 1858. A good deal of mortality must be attributed to other causes than the effects of climate; the mental depression consequent on a sentence of transportation, coupled with the long journey by land and sea, in many cases, renders the convict a victim to apparently trivial complaints. The Europeans in the Settlement, for the most part, enjoyed excellent health. There was no death among them during the year.

General.—Copper One-rupee Tokens struck in the Calcutta Mint were introduced during the year for the payment of the convicts' subsistence allowance. The advantages of this measure are, that it checks illicit traffic with ships, and does away with the labor of counting a large quantity of copper coin (half piece

and pie) twice every month. The Chaplain of Moulmein is to visit the Settlement once a year.

The Aborigines.—Intercourse with them was of rare occurrence, as they invariably try to steal. In January six aborigines from two different parties were captured in acts of aggression on the Settlement. One of these escaped; of the remaining five two were released, and three were sent to Moulmein in the hope that they might acquire a little English, and, by gaining some familiarity with the habits of civilized men, might prove the means of opening communication with their brethren. During a stay of eight months they acquired nothing. One died of consumption, and the other two were probably only sent back in time to save them from the same fate. They have not returned since their release, though treated with great kindness and loaded with what to them must have been great wealth when dismissed. The only result of their capture was the acquisition of about one hundred words or phrases of their language by Major Tickel. The whole of the words hitherto acquired were collected, and the Vocabulary submitted to the Governor General in Council. The aborigines did not, during the year, attempt any combined or open attack on the Settlement; though it is believed that a large party, who once made their appearance at Atalanta Point, came for purposes of plunder, and were only deterred by the preparations for resistance which they saw.

A N N A L S
OF
INDIAN ADMINISTRATION.

BEING AN ANALYSIS OF THE RECORDS ISSUED BY THE VARIOUS INDIAN GOVERN-
MENTS DURING THE OFFICIAL YEAR 1861-62.

VOLUME VI.

S E R A M P O R E :
PRINTED BY MARSHALL D'CRUZ.

1862.

ADVERTISEMENT.

THE Governments of India publish, on an average, a volume every four days. From reports affecting the entire Empire to accounts of local drainage, from the opinions of the ablest officers to the cost of a *cutch* bye-road in a frontier province, every thing finds a place in these publications. There is scarcely a subject connected with Indian Administration on which they do not exhaust official knowledge. There is no officer in the country who may not obtain from them, in reference to his special task, all the advantages of experience. The information thus vast is, however, widely scattered. The Records of one Presidency are scarcely known in another. The books are not very readily procurable, and above all they are, like all other blue books, dry, ill digested, and overlaid with detail. It costs an hour to find a fact, and in India men who care about facts cannot spare hours.

The object of the Editor is to remove this defect, to do for the official information of India, what Mr. Leone Levi is doing for the blue books of England. The Annals comprise every fact, and almost every opinion of importance, in the Records of the year. A copious Index enables the reader instantly to refer to the subject of which he is in search, and any peculiarity of opinion and even of style is carefully retained.

A word may be necessary on the arrangement adopted. It is intended that the most important subject should have the largest space, but in estimating the relative importance of the Records the Editor has been compelled to rely on his own judgment. Usually all subjects of imperial interest have the preference, statistics occupy the next place, and subjects purely historical the last.

CONTENTS OF VOL. VI.

IMPERIAL.

	<i>Page.</i>
Administration of Pegu, 1860-61,	30
----- Coorg, do.,	35
Indian Legislation, 1860-61,	36
Ditto Finance, 1860-61,	42
Human Sacrifice in Orissa, 1860-61,	46
Administration of the Public Works Department, 1860-61,	48
----- Straits Settlements, 1860-61,	77
----- of Oudh, 1860-61,	137
----- the Post Office, do,	147
----- Indian Marine, do.,	153
----- Tenasserim and Martaban Provinces, do,	153
----- Mysore, do.,	158
Khelat, 1867 to 1860,	232
Military Sanitaria, 1861,	246
Thuggee and Dacoity Department, 1859 and 1860,	279
Hyderabad Medical School, 1859,	289
Military Administration, 1861-62,	325
Bustar and Kharonde, 1861,	330
Calcutta University,	338
Military Sanitaria, III., 1862,	358
Tenasserim and Martaban Forests, 1859-60,	377
Ditto ditto, 1860-61,	379
Pegu Teak Forests, 1860-61,	380
Geological Survey, 1861-62,	384
Port Blair, 1861-62,... ..	388
Administration of the Hyderabad Assigned Districts, 1861-62,	391
----- of the Straits Settlements, 1861-62,	416
Railways,	432

CONTENTS.

BENGAL

	<i>Page</i>
Irrigation,	1
The Maghassani Hills,	3
External Commerce, 1860-61,	13
Administration, 1860-61,	79
The Sanitarium upon Mount Parisnath,	161
Calcutta Court of Small Causes, 1860-61,	219
Land Revenue, 1860-61,	299
Calcutta Police, 1859-61,	309
Salt Department, 1860-61,	313
Survey Operations, 1859-60,	319
Financial Results of the Abkarry Administration, 1860-61,	397
The Cuttack Rivers,	400
Water Communication by the Mahanuddy,	409
The Hidgellee Province Embankments,	410

NORTH-WESTERN PROVINCES.

Popular Education, 1859-60,	173
----- 1860-61,	176
Administration, do.,	202
Ajmere and Mhairwana, 1860,	225
Palsy in Allahabad,	229
Malignant Fever in Saugor, 1859,	339
Flax Cultivation, 1860-61,	340
Forests in Saugor and Nerbudda Territories, 1860-61,	342
Mahamurree in Gurhwal,	347
Cholera in Agra Prison, 1861,	349
Famine Relief in Moradabad, 1861,	351
Dispensaries, 1860,	354
Fever in Bolundshuhur, 1861-62,	356
Cholera in the Meerut Central Prison, 1861,	356
Administration of the Customs, 1861-62,	420
Revenue Administration, 1860-61,	421

THE PUNJAB.

Settlement of Mooltan,	10
Administration, 1860-61,	104
Revised Settlement of Googaira,	163
----- Googerat,	168

CONTENTS.

Page.

Popular Education, 1860-61,	...	...	...	...	190
Administration, 1861-62,	...	...	...	...	467

MADRAS.

Administration, 1860-61,	...	...	...	...	56
Public Instruction, 1859-60,	...	...	...	...	184
Criminal Justice, 1860,	..	...	...	...	196
Crime in the City of Madras, 1860,	.			...	198
Civil Justice, 1860, ...	...	...	.	..	200
Civil Dispensaries, 1859,	...	...	...	...	217
Public Works, 1860-61,	...	...		...	221
External Commerce, do ,	...	...	.	...	259
Medical College, 1860-61,	...	..	.	...	268
Land Revenue, 1859-60,	...	.	...	...	269
Court of Small Causes, 1861,	...	...	...	...	295
Administration, 1861-62,	...	...		...	439

BOMBAY

Assessment of Moorbar,	...	...	..	...	6
External Commerce, 1860-61,	..	...	..	...	19
Administration, 1860-61,	...	..	...	...	117
Public Works, 1858-59,	..	..		.	215
Thuggee and Dacoity, 1860,	.			..	317

INDEX

THE
ANNALS
OF
INDIAN ADMINISTRATION.

ADMINISTRATION OF THE HYDERABAD ASSIGNED
DISTRICTS (BERAR.)

1861-62.

THE Report is submitted by Colonel C. Davidson, C. B., Resident at Hyderabad. The transfer of the districts by the Nizam required to complete 32 lakhs of rupees a year assigned under the last treaty, was completed on the 23rd October 1861. The Wurdah is the boundary on the east; the Paen Gunga, for about two-thirds of the distance, is the boundary on the south; but, unfortunately, the remaining portion of the southern boundary, and on the west, north-west and north, except where it is coincident with the Taptee, is open and without any natural demarcation.

JUDICIAL.—*Civil Justice*.—Since the new territorial arrangements the sanctioned number of Superior and Small Cause Courts is thirty, namely, one Revenue and Judicial Commissioner's, two Deputy Commissioners', five European Assistants', two European Extra Assistants', two Native Extra Assistants', and eighteen Small Cause Courts. The new Limitation Act increased litigation. The Civil Procedure Code came into force in East and West Berar in January 1862. In the year 1861 5,830 suits were filed against 2,273 last year. Of these 2,219 were decided on their merits—2,040 for the plaintiff and 179 for the defendant: 744 cases were amicably adjusted, 12 were withdrawn, and 135 were dismissed for default. Thus altogether 3,110 cases were disposed of, leaving 2,720 cases on the files at

the close of the year. The value of property litigated was Rupees 5,66,729-2-10, and the cost of litigation Rupees 19,554-11-6, or Rupees 3-7-2 per cent. The average value of each suit was Rupees 182-3-8, and the average cost was Rupees 6-4-7. The average duration of suits was $38\frac{1}{2}$ days. In 1860 it was $44\frac{1}{2}$ days, and in 1859 83 days. Of Appeal cases there were 60 on the Commissioner's file, the Deputy Commissioners' decisions were reversed in 10, confirmed in 38, and modified in two cases. The value of property under litigation in decided cases was Rupees 1,60,517-5-7, and the costs Rupees 4,681-1-0, or Rupees 2-14-8 per cent. The average value of each suit was Rupees 2,972-8-8, and the average cost Rupees 86-11-0. The average duration of each case was 280 days. In 1860 it was 101 days. There were 195 cases in the District Appeal Courts, of these 125 were decided on their merits; the orders of the lower Courts having been confirmed in 96, and reversed in 29 cases. The value of property litigated was Rupees 20,581-14-4, and the costs were Rupees 1,523-5-6, or Rupees 7-6-5 per cent. The average value of each suit was Rupees 147-0-2, and the average cost Rupees 10-14-1. The average duration of each suit was $96\frac{1}{2}$ days; in the previous year it was 121 days. Of 1,732 witnesses summoned only 214 are shewn to have been detained for more than one day; and of these 14 only for 7, four for 8 days, and one for a month. One hundred and eleven persons were imprisoned for debt during the year, at the close of which five remained in confinement. In addition to the suits decided in the Civil Courts, 84 original and 29 appeal suits were disposed of in the Revenue Courts, and 53 original and 16 appeal suits remained on the file at the close of the year. On the Commissioner's Revenue file there were 26 cases.

Criminal Justice.—The Penal Code came into force on 1st January 1862. In 1861 there was an increase of detected crime; but a marked decrease in organized crime of the most serious description. In 1859 there were 47 gang robberies; in 1860 22, and 15 in 1861. Highway robberies considerably increased in the jungly southern portion of East Berar, to which the recent Treaty has added an extensive tract of country. There were 2,690 crimes against 2,181 the previous year. Of these 45 were of the 1st class of atrocity against 32. The value of property stolen is estimated at Rupees 60,514-2-1; that of the portion recovered at Rupees 10,092-14-0. The average amount stolen in each case was Rupees 23-9-3, and the proportion per cent. recovered was Rupees 16-6-6. Of 2,609 reported cases of crime the Police failed to trace 870, or 33 per cent. Of 1,862 cases committed

for trial during the year 306 resulted in total acquittal, in 1,506 convictions were obtained, and 50 remained for trial.

Police.—The new constabulary system was introduced, at an annual cost of Rs. 10,000 more than before. This provides for more ample supervision by European Officers; while these Officers will be at leisure to devote themselves entirely to their Police duties, instead of being embarrassed with interruption from their Civil occupations.

Jails.—An attempted outbreak took place among the prisoners at Sooltanghaierry, which resulted in six of them being killed, and several wounded; none succeeded in effecting their escape. The average number of prisoners during the year was 672, and the average cost of each prisoner was Rupees 44-9-11. The average mortality among the prisoners throughout Berar was 24, or 3½ per cent.

REVENUE.—Land Tax.—The revenues of the Districts in Berar, transferred to British management by the Treaty of December 1860, were collected by the Nizam for the year 1860-61, and did not form part of the actual income of the Assigned Districts until the year 1861-62.

Revenue demand compared with previous year.

For the year 1860-61	...	...	Rupees 36,37,058
For the year 1861-62	...	...	„ 39,13,433

Increase of Revenue demand in 1861-62 ... Rupees 2,76,375

This shews the revenue demand irrespective of the agency through which it was realised. In 1860-61 the demand on account of Land Revenue proper was Rupees 29,83,415, in 1861-62 it amounted to Rupees 32,24,718, shewing an increase of Rupees 2,41,303. We surrendered oppressive taxes which had been levied by the native government to the extent, in the two Berars, of Rs. 3,85,357. The season was bad, the cotton and jowarry crops were light and there was distress among the poor. The *Sayer*, or grazing and fruit-tree tax, yielded Rs. 1,00,412. The *Abkarree* yielded Rs. 3,52,188 or 48,671 more than last year, and the *Opium* contracts Rs. 36,436 or 8,659 more than last year. The new Act nearly doubled the *Stamp* revenue, raising it to Rs. 70,377. *Miscellaneous* revenue gave Rs. 48,045, and *Salt*, derived almost exclusively from the wells near the Poornah River, amounted to Rs. 36,160. In 1861-62 the whole Revenue demand on account of the Assigned Districts, omitting Income

Tax, amounted to Rupees 39,13,433. The demand from the same Territory in 1860-61, when part of it was under the management of the Nizam's Officers, was Rupees 36,37,058, shewing an increase in the year 1861-62 of Rupees 2,76,375. The *Income Tax* yielded Rs. 8,294, and the *local funds* Rs. 1,08,209.

EDUCATION.—The mercantile (Marwarries) and agricultural classes in Berar (generally Mahomedans and Mahrattas) are backward in sending their children to our schools. The Officiating Commissioner proposed to establish one English school at each of the two Sudder Stations, and 12 Mahratta schools in each of the two Divisions of Berar, thus allowing one Vernacular school for each Tehsildaree, and three for location in other large towns. The whole cost would be Rs. 24,000 a year. At Chudderghaut there is the Residency Medical school, supported entirely by the Nizam's Government. In Hyderabad there is a Madrassa (College) in which there are 24 Teachers of purely oriental languages and sciences, with an English class conducted by Mr. Carey. At Chudderghaut there are also the Bishop's school supported and conducted by the Roman Catholic Clergy, and a Protestant school maintained by private subscription. In the adjacent Cantonment of Secunderabad is an Orphanage for boys and girls with which the Cantonment school is incorporated, and these with a Cantonment school at Bolaram are in addition to the Regimental schools always found in the Corps of the British Army.

PUBLIC WORKS.—Labour was in great request at Secunderabad, for the works on the Godavery and for the Hydraulic Works of the Irrigation Company, and the means resorted to eventually by the private Agents to procure them amounted to something like the nefarious practice of crimping. Rs. 21,472 were spent on the Nagpore Dak line, 245 miles in length, of which 165 are in our territory. A Committee selected 14 lines for feeders to the railway aggregating 551 miles and the following were at once undertaken by Government—Aukolah Railway Station to Akote, West Berar, about 29 miles—Budneira Railway Station to Moresee, East Berar, about 39 miles. Progress was made on the First Class Metalled Road from Toka to Aurungabad in the Nizam's Dominions, 26 miles, which will be completed in 1862-63. The Trunk Road from Secunderabad to Tandulwaddy on the Hyderabad and Sholapore Road was commenced about the beginning of 1858, and completed in May 1860. The road from Hyderabad to Bellary *via* Kurnool was com-

menced in 1856. The total distance from Hyderabad to the Toongabuddra is 122 miles. In June 1861 it was ordered to be recommenced and there are 3 Bungalows on the first 54 miles. In June 1862 the Sholapore and Bellary Road, 41 miles, was completed. Of the Trunk Road from Hyderabad to Masulipatam, the portion within the Hyderabad Territory or 91 miles is practicable for cart traffic at all seasons.

FINANCE.—To ascertain the financial position and actual requirements of the Province, a Commission was ordered by the Government of India to assemble at Hyderabad in the month of August 1861, composed of the Resident, Mr. Temple, and Brigadier Browne. The following Statement exhibits the result of the financial investigation :—

	Rs.	Rs.
Net Revenue of the Ceded Districts of Bellary, Cuddapah, Kurnool, &c. ...		33,75,000
Present cost of the Subsidiary Force...	50,00,000	
Proposed reductions according to Military requirements of the Province, as recommended by the Commission ...	25,00,000	
Political charges ...	1,10,407	
		<u>26,10,407</u>
Surplus in excess of expenditure ...	...	<u>7,64,593</u>
Revenues of East and West Berar ...	...	36,32,686
Civil charges and Military charges of Contingent ...	...	<u>34,67,640</u>
Surplus ...		<u>1,65,046</u>

The total collections in 1861-62 were Rs. 38,21,696-5. The revenue last year was Rupees 29,61,722-3-9, and the newly-acquired Talooks were valued at Rupees 7,72,397-10-0, giving a total revenue of Rupees 37,34,119-13-9. The Civil Administration expenses were Rs. 5,54,136. A surplus thus remains of Rupees 32,67,559-15-6 for the pay of the Contingent, Public Works, and the other purposes for which the country was assigned to British management; these charges will amount to Rupees 34,38,665, leaving, as the surplus of receipts over expenditure for the year under review, Rupees 3,83,031. The debt against the Nizam on 30th April 1860 amounted to Rs. 5,35,937, and on 30th April 1862 to Rs. 2,92,048. The total charges on account of Civil Administration and Police throughout Berar were Rs.

5,13,028, being a percentage upon the gross revenue, 38,21,696 Rupees, of 13-6-9.

MISCELLANEOUS.—Cotton.—Experiments with the view of introducing exotic cotton were continued without success. If cotton adapted for the Home Market, equal or nearly so to American produce, be expected from Berar, the cleaning and ginning must be conducted by different agency to the culture. The cultivator's object is to obtain a quick return for his crop ; it is, therefore, a matter of great indifference to him whether his cotton is clean or full of seed, leaves, and gravel, so long as it meets with a quick sale. The remedy is obvious. The exporting merchant must have on the spot in the cotton districts agencies, store-houses, gins, screws, and packing machinery, merely purchasing his crop from the cultivator. Of the remunerative result there can be little doubt, and another most beneficial effect will be that the cultivator will be no longer in the power of the grasping village money-lender and extortionate middlemen as at present. It is believed that such an agency has already been established at the Railway Station of Budneira, and it is to be hoped that others will speedily follow.

The Survey.—During the year 601,933 acres were measured. Revenue Survey fields, 10,756, comprising acres 186,450, were classed. The settlement was introduced into 70 villages, containing 107,144 acres. The realized revenue of these 70 villages in 1860-61 was Rupees 74,367. In 1862-63, under the Survey settlement, not less than Rupees 95,000 will be realized, an increase in the revenue of Rupees 20,633, or 28 per cent. The average cost of measurement on the operations of the year ending 31st of October 1861, with which date ends the survey year, was Annas 1-9½ pie per acre, and the cost of classification 5½ pie per acre, giving Annas 2-3¼ per acre for the whole operation, including settlement. The proposal was sanctioned to lease out for 10 years' waste lands in the South of East Berar, without any intermediate modification of terms. The Kowls (leases) will be drawn up so as to give a reasonable security to the tenants, that those who lay out capital on the lands will be permitted, at the end of the ten years, to continue in occupation on payment of a fair rent.

Vaccination was re-established in the Districts restored to the Nizam by the Treaty of 1860. In Berar four Vaccinators were employed—during the year 557 children were vaccinated, and 435 cases were successful.

**THE FINANCIAL RESULTS OF THE ABKARRY
ADMINISTRATION OF THE LOWER PROVINCES.**

1860-61.

THIS Report is furnished to the Government of Bengal, by the Officiating Secretary to the Board of Revenue and consists chiefly of tables. We give the general results, and the details of the most important Division in which Calcutta is included—Nuddea. The net revenue of 1860-61 was Rupees 41,69,337 against Rs. 37,71,123, shewing an increase of Rs. 4,11,303. Of this Rs. 3,70,152 is due to an increase in the price of Opium, and of this last sum Rs. 2,18,892 is owing to the substitution of abkarry for indigenous opium in Assam.

Nuddea Division.—"The general results of this Division are very satisfactory, showing a net increase of Rupees 77,809 in the revenue":—

				1859-60.	1860-61.
				Rs.	Rs.
Collections,	...	...	...	10,93,127	11,77,350
Expenses,...	...	...	...	144,200	1,50,614
Net Revenue,	...	...	...	9,48,927	10,26,736
Percentage of charges to collec-					
tions,	...	...	...	6-0-5	5-12-5
Balances,	...	...	...	3,656	6,531

In Barrackpore the collections from Country Spirits fell off in consequence of the closing of spirit shops in the Cantonments. In Calcutta, although on the whole there is an increase of Rs. 8,994, yet the collections from Country Spirits, Rum, and Ganja decreased. This is attributed mainly to the vendors having in February 1860 cleared large quantities of these articles in anticipation of the increase in the rates of duty:—

Abkary Demand and Collections in Nudda.

DISTRICTS.	1859-60.						
	DEMAND.			COLLECTIONS.			
	Bukya.	Hal.	Total.	Spirits and Drugs.	Opium.	Miscellaneous.	Total.
Dum-Dum ...	0	2,164	2,164	2,164	1,380	0	3,444
Nudda ...	30	27,832	27,862	27,692	15,928	211	43,731
Jessore ...	0	28,745	28,745	28,450	14,455	13	42,918
Baraset ...	0	17,571	17,571	17,525	9,932	298	27,755
24-Pergunnahs ...	0	2,66,285	2,66,285	2,65,804	85,632	44,853	3,96,289
Barrackpore ...	0	90,121	90,121	90,121	7,776	2	27,899
Calcutta ...	0	2,87,990	2,87,990	2,85,326	1,07,316	1,58,449	5,51,091
Total	30	6,50,708	6,50,738	6,47,082	2,42,219	2,03,896	10,93,127
1860-61.							
Dum-Dum ...	0	7,268	7,268	7,268	1,736	0	9,004
Nudda ...	170	33,063	33,233	32,971	21,693	95	54,759
Jessore ...	295	33,513	33,808	33,393	19,096	83	52,572
Baraset ...	46	16,005	16,051	16,051	11,678	579	28,308
24-Pergunnahs ...	0	72,063	72,063	71,540	1,13,536	2,54,277	4,39,353
Barrackpore ...	0	18,425	18,425	18,425	8,862	0	27,267
Calcutta ...	0	84,136	84,136	78,805	1,39,716	3,47,546	5,66,067
Total	511	2,64,473	2,64,984	2,58,453	3,16,317	6,02,580	11,77,350
							6,531

Balances.

Total.

Miscellaneous.

Opium.

Spirits and Drugs.

Total.

Hal.

Bukya.

DISTRICTS.

Calcutta

Barrackpore

24-Pergunnahs

Baraset

Jessore

Nudda

Dum-Dum

Collections made from each class of excisable articles in Nuddea.

Districts.		Country Spirits.		Putchwee.	Taree.	Ganjah.	Sidhee.	Churus.
Nuddea	21,304	1,099	140	9,307	17	40
Jessore...	19,150	0	264	12,954	6	67
Baraset	6,861	0	447	5,224	17	63
Barrackpore	3,628	0	1,973	1,922	0	11
24-Pergunnahs	2,23,475	0	41,710	40,950	274	1,464
Calcutta	2,05,285	0	18,633	31,025	1,277	2,118
Dum-Dum	5,565	0	456	892	46	23
Total Rs.	4,85,268	1,099	63,623	1,02,274	1,637	3,786

Districts.		Bhaung.	Majoom.	Muddut.	Chundoo.	Imported Wines and Spirits.	Rum.	Total.
Nuddea	...	0	0	733	0	88	72	32,800
Jessore...	...	0	0	849	0	59	48	33,397
Baraset	...	0	0	3,704	0	12	256	16,584
Barrackpore	...	80	0	1,456	0	320	9,036	18,426
24-Pergunnahs	...	0	100	6,308	0	2,712	8,324	3,25,817
Calcutta	...	0	1,665	5,376	2,112	22,235	1,36,625	4,26,351
Dum-Dum	...	0	0	183	0	56	48	7,269
Total Rs. ...	...	80	1,765	19,109	2,112	25,482	1,54,409	8,60,644

The Report, so far as financial results are concerned, is considered by the Lieutenant-Governor to be very satisfactory and creditable to the Department generally. The Lieutenant-Governor trusts that, in the course of 1861-62, even if the Board are unable wholly to complete the abolition of Out-stills, substituting for them Sudder Distilleries, (whereby the tax is levied at a high fixed rate on the quantity of Spirits actually consumed, and the ground of the charge now made against the Department that it encourages consumption is removed), they will be able to accomplish this most needful reform over the greater part of the country under their administration. Mr. Plowden, the Commissioner of Burdwan, in a late Report to the Board, has most truly said that "the Abkarry Department can never be respectable till the Out-still system is absolutely abolished, and the tax is levied at so much a gallon." This may now be accepted as the view universally taken outside the Department, and admitted by the most intelligent Officers in the Department. The opprobrium cannot too soon be removed. As yet the Nuddea Division is the only one to which the Board can point as being wholly free from reproach on this account. The Sudder Distilleries supplied 854 shops in 11 districts.

THE CUTTACK RIVERS.

Bengal Records, No. XXXV.

Two volumes, with a third part of Plates and Sketches, contain a series of letters and reports on the subject of the Cuttack Rivers extending from 1855 to 1860. Captain Beadle reports that on 27th July 1855 at 6 A. M., a flood in the Mahanuddy and its branches began, and attained the extraordinary height of 27.35 feet on the 29th, being 3 feet higher than the floods which caused so much damage last year, and that if the revetment wall had not been raised in height this season, the city of Cuttack would have been probably destroyed. Lieutenant Harris was accordingly relieved from the details of the Cuttack office and embankments, and employed in making a comprehensive survey of the rivers of the Province.

Harris' First Report.—On 15th September 1856, Colonel H. Goodwyn, Chief Engineer, submits the first Report of Lieutenant Harris. He describes the course and capacity of this river from Bydessur to Naraj, a distance

of 29 miles, whence the Mahanuddy emerges, with great velocity, from a rocky gorge only $\frac{1}{2}$ mile broad, into a wide basin situated just above Cuttack, in width 3 miles, and length from Naraj to the head of the town, 4 miles. At this point, or head-land of the Delta, the Mahanuddy diverges into several streams, the two principal ones, viz. the Mahanuddy Proper and Katjooree, flowing respectively on the North and South borders of the town. As the river debouches from Naraj into the open space before it, its velocity becomes diminished, silt is deposited in the bed, to compensate for which, lateral action upon, and erosion of, banks ensues. The northern bank appears to have yielded until a rocky limit was arrived at, but the southern shore is still undergoing abrasion, and thus the heads of the Kokai and Katjooree, two of the effluents on this side, have become considerably enlarged and now admit more than a due proportion of the waters of the Mahanuddy. After entering minutely into the facts and phenomena of the Mahanuddy River and the imminent danger threatening the town of Cuttack, which arises principally from the increased volume of water now flowing into the enlarged bed of one of its effluents, viz. the Katjooree River, Lieutenant Harris proposes a remedy by the construction of an incomplete or sunken weir in the bed, extending like a spur from the right bank at Naraj in the direction of Temple Island upon the northern shore, to a distance of 4,900 feet, which he anticipates will have the effect of turning a considerable portion of the water, which now passes off by the Katjooree, into the Mahanuddy Proper. However Lieutenant Harris is of opinion that, if the permanent safety and well-being of the city were a prominent consideration, and the work could be extended over a long term of years, a complete weir from Naraj to the head of the town of Cuttack would be more desirable. The sunken or incomplete spur, Lieutenant Harris estimates, might be constructed for Rupees 1,50,000, but the Superintendent of Embankments considers it would be safer to estimate it at Rupees 2,00,000, and in addition to the sunken spur considers it would be necessary to have one of two other works, shown in a Sketch Plan submitted by him—one of these works being a continuous dam across the bed of the Katjooree between Chargurreah and the stone revetment at Cuttack, the other, and more preferable, being a continuous dam, 14 feet in height, across the Kokai, round the point of land and across the Katjooree bed; in either work lock-gates and sluices would be requisite in the bed of the Katjooree. But in lieu of the sunken spur at Naraj and either of the consequent works, the project which the Superintendent of Embankments would

prefer (and for which he submits a rough estimate, amounting to Rupees 3,50,000) would be a continuous weir across the basin connecting Naraj with the head of the town of Cuttack by a curvilinear bank of rubble stone, over which high-floods would spill, and along which he supposes the waters would flow until they cross to the deep channel which would form along the left bank of the Mahanuddy, instead of round the extremity of Lieutenant Harris's spur and down the revetted side of the town. By this means, also, he anticipates the Beropa would be cleaned out and again become a river, as, in the opinion of Lieutenant Harris, it would be the best channel to make navigable.

Captain Short's Plan.—In February 1855, Captain Short, then Executive Engineer of Cuttack, proposed to attain the same result as Lieutenant Harris and Captain Beadle, by the construction of an artificial tongue or promontory formed of two legs of masonry, to cause the volume of flood, immediately after emerging from the gorge above Naraj, to diverge in proportion to the capacity of channels of the two principal affluents. All the projected works have the same object, viz. to restore the equilibrium of the channels by clearing out the bed of the Mahanuddy, and reducing the discharge of the Katjooreo, thereby decreasing the danger threatening the town of Cuttack; whichever project may be finally approved, the stone that is being collected from the Naraj Hills, will be equally available. Before any decided recommendation could be made it was necessary to await the result of Lieutenant Harris's labours during 1857, which will be chiefly devoted to the effects of the Mahanuddy floods on the districts of Pooree and Cuttack, and the capacity of the several channels, and particularly the improvement of the upper portion of the Mahanuddy and the practicability of the formation of a reservoir in the upper reaches, with a channel between the upper Cuttack districts and the Chilka Lake navigable throughout the year.

Previous history.—Meanwhile on 3rd August 1857 Captain W. D. Short, according to request, submits a full report on the "causes of the numerous and constantly occurring breaches in the embankments of the Cuttack district, and on immediate measures for the prevention of the recurrence of similar evils." The province of Orissa is liable to the most remarkable vicissitudes of drought and inundation. Previous to 1840 the system of maintaining embankments was insufficient. Prior to the date of the new settlement in 1834-35, the country was laid waste by inundation and from that time to 1842-43, or in 9 years, there were remissions of nearly 23 lakhs of Rupees or 2½ lakhs a year,

the interest of 50 lakhs of Rupees at 5 per cent. The present settlement was made on a sufficiently liberal scale to allow of the zemindars bearing all ordinary losses, but in all extraordinary seasons the river has been allowed to devastate to such an extent that the settlement could not stand the test, necessitating remissions. From 1840 to 1845 the condition of the embankments was improved by Captain Rigby, but from that time to 1849 it deteriorated, because orders were passed by the Military Board, prohibiting *all* but the repairs necessary to prevent actual breaches while the question of "abolition or retention" of embankments was under discussion. In January 1849 Captain Rigby left on sick leave, when Captain Macleod took charge, who, with a desire to economise, but with a hasty and unsound judgment, supported by Lieutenant-Colonel Sage, (the then Superintending Engineer) swept away, by a stroke of the pen, nearly one-half of then existing embankments as fictitious and useless, and in the same spirit expended little or nothing on what remained. The utility or otherwise of 900 miles of embankment and the agreements on which they were constructed and repaired, required something more than the knowledge obtained in a single visit in the dry season. The enemy feared by cultivators is *not water*, but the strong and violent currents sweeping every thing before them (when allowed to pour down over the fall that is to be found *inland* from the banks of all these great rivers) and the attendant *deposit of sand*, and wherever an embankment wards off these evils, and sluices are given to assist irrigation, the people and the Revenue must be benefited. Again, as water is required in seasons when the river flood does not top the bank, the local rain is retained within large tracts (to fertilise the land) by embankments, which in this way are of benefit. Four continuous seasons of neglect, viz. 1849-50, 1850-51, 1851-52 and 1852-53, during which six Officers' names are found on the list, had left the embankments in a state which baffles all description, when the heavy floods of 1852-53 breaching the embankments in 1167 *localities*, devastated the district.

In January 1853, Captain Short joined as Officiating Executive Engineer. The revenue officers and landowners cried "why are the embankments in so disgraceful a state?" whereas the heavy responsibility lay at the door of the *authorities themselves*, who had, by positive orders, put a stop to protective measures by breaking faith with the landowners. Captain Short determined not only to close the breaches efficiently, but to strengthen every important point, and such work was accordingly carried out, when the floods of 1854-55 rolled down the Mahanuddy and Katjooree rivers. The flood level was the highest on record,

(although since exceeded by that of 1855-56,) topping the revetment in many parts, and only kept out by unceasing labour by day and night (by means of sand bags and stone work), and the embankments which had been strengthened were breached in 878 places. The Mahanuddy and Katjooree floods met below the station, and finding their way through the Budja Kawat sluice, the town was threatened with an inundation similar to that of 1828, and as the level was 6 feet below the *then* high water mark the danger was very serious. The height of the flood, its duration, and the danger to the town and the embankments, was increased many fold from the fact of a terrible gale opposing the pent-up volume, which was lashed into a sea during a continuous period of 42 hours. During such a terrible visitation, the danger was averted by the assistance afforded by the Collector, Mr. R. Harrison, who gave the prisoners for the work, whilst the populace slunk panic-stricken within their houses.

Disastrous as were the results of the flood season of 1854-55, (considering that a strong gale prevailed during the period of high level of water) the breaches were less in number than in 1852-53 and 1853-54, proving that much had been done to strengthen weak parts. Captain Short recommended in 1853 a system of continuous break-waters of brushwood, to arrest deposit, and thereby fill the pools, urging that the brushwood would offer little or no obstruction to the current, and would arrest the sand, mud and weeds. This was done in 1856-57 successfully. In 1853-54 Captain Short submitted a project to turn the channel, divert the floods, and cause them to rush parallel to and at a distance from the revetment. This was done by first cutting a new channel, then damming the low water current and diverting it therein, whereby the great flood in the Katjooree of 1854-55, rushing through the new cut, thus became (as may be seen to this day,) the main channel. The success of this project was duly recognised by the authorities. He projected an escape for the floods from Bargovee into the Sur Lake, moreover in order to save a very valuable property worth about 2 lakhs on the left bank of the Kooslbudder river (southern Division.) Where thousands of rupees had been expended in an attempt to oppose the current, he cut a new channel, and caused the floods for the future to flow therein, the old channel silting up. These measures affected only portions of the delta, while the key to the whole question of re-opening the Mahanuddy channel to receive its proper volume, making it navigable, preserving the district from the fearful visitations by inundation and drought, was to be found in controlling the waters of the Mahanuddy river at the head of the Delta. He originated a project for this purpose, but as no

means were taken, the prediction was unexpectedly though terribly fulfilled in 1855-56, when the highest flood on record breached the embankments in 1365 localities (carrying away in the aggregate twenty-five and a half miles of embankment), devastated the central and southern districts, breached the revetment, and would have inundated the town had portions not been raised the year previous. The season of 1856-57 was an ordinary one, the level of flood being several feet below that of former seasons, the duration at its highest level was, however, protracted, and the damage done consisted in 404 breaches. It is declared that for 10 years, or from 1847 to 1857, the embankments of the Province deteriorated, and the greater portion of the expenditure incurred was money sunk, and that little or nothing was done to advance the *permanent* security of the district. Great as may have been the injury in the deterioration of the protective works, the evil consisted in the lowering (by the increased scour) of the level of the bed of the Katjooree, and the consequent silting up of the great Mahanuddy river. In 1857-58, the head of the Katjooree taking in the whole of the low water current and its bed so scoured that the low water level is 2 feet below all former ones, whilst the Mahanuddy, the main stream, is, for the first time on record, entirely dry, with its bed proportionally raised, and the difficulties of re-opening it increased a hundred fold. The Superintendent of Embankments, Captain Beadle, also saw the necessity of diverting the current into the Mahanuddy, and made a proposal for a weir, the heel of which was to extend from below Naraj, but nothing was sanctioned. Nevertheless Captain Beadle directed Lieutenant Harris to carry out the work by "stacking the stone in the shape it would eventually assume, which order was met by active measures under Lieutenant Harris." But the work was stopped by the authorities.

Further Report of Captain Short.—In a subsequent Memorandum Captain Short states that the Mahanuddy river rises in the province of Nagpore, and flowing in a direction from West to East about 100 miles, turns suddenly to the North for about 100 miles, when running to the north-east about 150 miles, and passing the town of Sumbulpore, it flows eastwards, a distance of about 200 miles, to the head of the Delta, in the province of Orissa, and thence eastwards for a further distance of 68 miles, falling into the sea in the vicinity of the False Point Light House; its total length therefore may be estimated at about 600 miles. The neck of the river from Sydessur Hill to Naraj is about half a mile in length and less than half a mile

in breadth, and rock-bound; it is only therefore from *below* Naraj hill (where the volume debouches into the plains and the Katjooree river is thrown off) to the coast, a distance of 68 miles, that it becomes a question for consideration how the water can be controlled to benefit central and southern Cuttack by means of irrigation. Embanking, as a system, must have existed throughout the Delta for the past 7 or 8 centuries. Labour for the purpose now is scarce, but Captain Short says, "Compulsory labour is to be deprecated, and yet to save a large tract there should be, as in Holland, a law to enforce it; but at the same time adequate remuneration should be given, which under the present system could not be expected. The present system is exceedingly vicious. the darogah gains in various ways, first by deceiving the labourer, and secondly the Government."

Captain C. B. Young's opinion.—On 1st December 1857 in a letter from Captain C. B. Young, Officiating Chief Engineer, Lower Provinces, it is shewn that Rs. 87,429 are required to repair the breaches in the Cuttack embankments. The average annual cost of repairs since the year 1840, excepting two years 1849 and 1850 when the repairs were designedly neglected, was about 47,000 Rupees. For the last few years from 1854-55, it has been considerably more, and in the year 1855-56 amounted to Rupees 1,20,789. During the 23 years from 1834-35 the total revenue remitted and expended in Cuttack was Rs. 30,01,569. The height of the Cuttack floods depends much upon the state of the sea tides at the critical time, particularly in south Cuttack, where the Chilka lake under the influence of gales from the eastward, exercises a considerable influence upon them. The quantity of water discharged by the main river, the Mahanuddy, in the rains, is so enormous, being more than three times the volume of the Hooghly or three quarter millions of cubic feet per second, the streams into which it sub-divides itself and which intersect the Delta in all directions, are so numerous, and the velocity of the current so great, that changes in the channels are frequent. Captain Young is of opinion that Cuttack is about 50 miles from the sea, and of this distance, 20 miles on the seaboard are so low as to be subject to sea inundation. There remain but 30 miles, and nearly the whole of this would probably be lost before the water could be brought to the surface. The dam or weir proposed to be constructed by Lieut. Harris at Naraj above Cuttack is 21 feet in height, and its crest is 17 feet below the flood level of the river, which reaches to nearly the top of the bank. To attempt to control the inundation floods of the Mahanuddy, which are of three times

the volume of the Hooghly, or 18,00,000 feet per second, by any such dams as those proposed, would be, in his opinion, quite impossible. Mr. Armstrong gives it as his opinion and in this he says he is supported by Lieut. Harris, that "it would be more advisable, considering the natural construction of this country or district, that the embankments should be entirely done away with, than that ill-constructed works should remain." On the subject of removing the embankments altogether, the Board of Revenue report, on 5th February 1858, that of 110 embankments in that district on the list of the executive officer, the Government is bound to keep up 40, and that it would be liable to a civil action for any injury that might result from the abandonment of any of these bunds.

Court of Directors' Despatch.—On 4th August 1858 the Court of Directors send a despatch on the subject, in which, after reviewing the whole question, they express dissatisfaction at the removal of Lieutenant Harris from the special duty to field service before he had sent in his whole Report. In explanation Captain C. B. Young promises the rest of Lieutenant Harris' Report "shortly," and states that meanwhile the embankments have been well repaired and placed in as good order as possible. New sluices have been constructed, while the revetment wall has been raised to an uniform level the whole way down the Katjooree left bank; the deep water channel of the river has been shifted, by means of brushwood break-waters, away from the base of the wall which has, in consequence, silted up greatly with sand. The embankments surrounding the city have also been raised and so constructed as to render it comparatively safe, if not altogether so, in case of inundation. The good effect of these measures has been already apparent, the Superintendent states, in the smaller amount of remissions of revenue made during the last four years. Lastly, the large stone groyne at Naraj above the city has been constructed, the effect of which will probably be to relieve the Katjooree of some of the surplus water it was carrying off, and to divert the same into the Mahanuddy. Captain Young gives his opinion that the first evil of the country is drought, which nothing but an anicut or complete weir from bank to bank will avert effectually. The second evil is inundation, from the fact that the river pours down double the quantity of water in inundations which its channels can carry off; and nothing but surplus reservoirs will remedy this.

In reply further to the strictures of the Court of Directors, based on Captain Short's statements, Captain Beadle on 22nd June 1859 shows that Captain Short's memorandum is out of date as it was

written before the calculations of Captain Harris' survey of the Mahanuddy which proved that the Delta channels of that river were only capable of passing off to the sea half of a maximum flood, and that during the period of a maximum flood, 9,00,000 cubic feet of water per second have to find a place somewhere, until the subsiding river allows of the surplus flood draining off by the Delta channels. This astounding deficiency of water channel in the Delta of the Mahanuddy, had evidently not entered into Captain Short's mind. Captain Short was not aware of the first great evil of a flood 9,00,000 cubic feet per second in excess of what the Delta channels in the Pooree and Cuttack districts, embanked as they are, can contain and carry off to the sea, and he had only the second great difficulty of the river in his mind, that of the re-distribution of the waters by forcing the full volume down the Mahanuddy branch which that Delta river and its channels can contain and carry off. During the last 4 years only Rs. 119 were remitted in Cuttack, and 1,29,149 rupees in the Pooree division, and the season (1858-59) was a year of abundant crops, placing Orissa in comparatively easy circumstances.

Present Condition.—The embankments in Pooree are now better than even they were with the advantage of a stone spur at Naraj to diminish the floods entering the Pooree district, and to turn the greater volume of waters down the Mahanuddy side. The revetment of the city is also secured from the action of the river which used to undermine and bring it down. An additional escape to the sea will be furnished for the Pooree floods by connecting the Sur lake with the Koosbudda, and Captain Beadle was prepared to open out the Chilka to the tides during the flood season. But the most important question has not been met. If the floods directed into the Mahanuddy do not clear out and increase the channels to the extent that the spur has increased their volume, the Cuttack district will be perhaps worse off than before. The floods entering at the Delta head must be reduced by retarding the rush of the river to the Delta, and this question still occupies Captain Harris. On 23rd November 1859 the Government of Bengal inform the Government of India that the general question respecting the Cuttack embankments will be taken up by the Lieutenant Governor on the receipt of Captain Harris's final report. On 1st February 1860 Captain Harris submits a report on the Naraj spur in the course of construction at the head of the Mahanuddy Delta. The work was commenced in June 1858, and a length of 750 feet had been projected before the floods of the year rendered a temporary cessation of work necessary. By the end of the year it

had been extended 1,425 feet, and before the floods of 1859, the spur had been extended to the sands of the opposite shore of the Katjooree, or a total length of 3,000 feet, and to a height equal to the dry weather level of the river. Since the rains the heightening of the spur had been carried on vigorously. The result of the spur, as evinced by the guage measurements made during the rains of 1859 as regards three high floods, was to raise the Mahanuddy level in the first flood, thirteen inches; second flood, fourteen inches; and third flood, eight inches, as compared with floods of similar height in the Katjooree in previous years, and since the falling of the river, it has been ascertained that the bed and water lines of the Mahanuddy have been reduced in level eighteen inches. On 27th July 1860, Captain Harris reports that both the stability and practical utility of the Naraj spur had been established in the most satisfactory manner.

WATER COMMUNICATION BY THE MAHANUDDY BETWEEN CUTTACK AND SUMBULPORE.

Bengal Records, No. XXXV., Part II.

ON 3rd May 1858, the Superintendent of the Tributary Mehals reports to the Government of Bengal that the only impediment to the free navigation of the Mahanuddy consists in the numerous rocks which are imbedded in the river from Boad upwards to Sumbulpore and beyond. Whether these rocks could be removed or not without a disproportionate expense being incurred, is a matter on which he has no information. At present boats are liable to be dashed to pieces on their downward trip; and on the upward voyage these rocks are only passed with the greatest labour, owing to the opposing force of the currents and eddies caused by them. The Mahanuddy has never been surveyed, and the exact nature of the impediments and the practicability or otherwise of removing them without incurring a disproportionate expense, are unknown. The river is navigable throughout the year as far as Sumbulpore, though the boats used late in the season are of smaller size than those that are used when the depth of the river is greater. In the rains, and for some time after their close, boats come down in great numbers from Sumbulpore and more distant

parts, laden with cotton and grain chiefly, taking back cargoes of salt, brass plates, clothes, cocoa-nuts, &c. At such time the average of the downward voyage is about 5 days from Sumbulpore, and 18 to that place. In the hot weather, the water is so shallow in places, that there is often great delay, and the average of the downward voyage may be reckoned at 14 days, the boats used being of small size. The class of boats used are of peculiar build, being long and narrow, in order the better to thread their way among the rocks obstructing the channels: they carry, however, considerable cargoes. After reports from Captains Beadle and Harris the Lieutenant Governor expresses the opinion that the opening out of the Mahanuddy so as to provide an open channel not only to Sumbulpore, but, if possible, to the adjacent districts of Nagpore, is a very important and advisable measure, but as His Honor is not aware whether Madras Sappers are available for the duty proposed, he awaits the instructions of the Hon'ble the President in Council. On 17th September 1858, the Bengal Government are informed that the Hon'ble the President in Council will defer consideration of the subject until receipt of Captain Harris's report.

THE HIDGELLEEE PROVINCE EMBANKMENTS.

1861.

India Records, (Public Works,) No. XXXVI.

By order of the Governments of India and of Bengal, on 1st May 1861, Captain W. D. Short, Superintending Engineer of the Burdwan Circle, submits a complete Report and Plans on the subject of the Hidgellee Province Embankments.

The Plan shews the profile of the country, as well as the actual state of forwardness of the great Sea Dyke, with the data on which all calculations are based, viz., the spring tide level taken at the same hour along the whole line on the 3rd July 1859, as also the storm-wave level three feet above which it is proposed to raise the crest of the Dyke. Captain Short divides his Report into three parts—Northern and Southern Hidgellee and Pergunnah Doroo Doomun, situated to the north of the Huldee, and bounded by the Hooghly to the west and north. The coast line of Southern Hidgellee, situated between the Soobunreekah and Russulpoor Rivers, a length of about 36 miles, is open to the

ocean, thereby necessitating the construction of a great Dyke to withstand the sea driven in by a cyclone, and this Dyke is the *one great work*, on the efficiency of which the safety of Southern Hidgellee depends, all other inland protective works being of minor importance, and being moreover completed; whilst the great Hooghly River face in Northern Hidgellee, extending from the mouth of the Russulpoor River to that of the Huldee, a length of about 18 miles, may be said to be in a slight measure protected by Saugor Island. The embankment required therefore to withstand the storm-wave driven in by a cyclone, though inferior to that of the Sea Dyke, must be of heavy section; the alignment, however, is now completed with funds actually granted by Government for the purpose. Finally, Doroo Doomun, situated to the north of the Huldee River, is subjected only to the storm-wave driven up the Hooghly where the channel is narrower; the embankment however required to withstand it is heavy, though inferior to that in Northern Hidgellee, and this may be also said to be completed. He recommends strongly the immediate completion of the great Sea Dyke, entailing a probable outlay of Rs. 6,20,214.

Previous History.—During the last 35 years various officers have made Reports, but unhappily, up to 1850, with no good results, as every attempt to meet the actual requirements has been crippled by false economy. During half a century (or up to 1856) the enormous sum of about one million sterling had been lost to the Government by revenue remissions, loss of salt, feeding the starving population, and on expenditure in attempting half measures. The tortuous alignment along the sea coast and up the inlets in Southern Hidgellee, as found in 1782, was an inheritance bequeathed to the Indian Government. It formed the boundary between the cultivated and salt tracts, and averaged nine feet high with a base of 20 feet along the coast, but much less up the inlets, so that for ordinary purposes to withstand high spring tides they may have answered. The Salt Agent had charge of the embankments up to March 1823, when the protective works were made over to the Civil Surgeon, in the first year of whose inauguration (or 1823) the whole line of bunds was entirely swept away. At the same time a far greater calamity occurred, the effects of which are felt to this hour. The sea swept away to a great extent the sand-hills, which, up to that period, nature had provided as a barrier to meet the first shock of the storm-wave, and the Engineer had to provide protection against the direct action of the sea. New embankments raised in 1823 and 1831 were again swept away in the great gale of 1831. From

March to the end of May 1832 Dr Menzies managed to complete a new line on the coast with a maximum section of 15 feet high and base of 70 feet, and for this the labour of the district must have been levied en masse; however, these praise-worthy efforts in a great cause were nullified by the occurrence of a gale on the 7th October 1832, or within a month of the completion of the work. The misery of the people is contrasted with that of the late Famine in the North-West. The Official Report stated "that 865 villages were inundated, exclusive of those in the large Pergunnah of Goomghur in Northern Hudgelee, 7,112 souls perished, and 44,176 head of cattle were destroyed, the soil for purposes of agriculture ruined, and the tanks filled with salt water; and after the flood had subsided, the exhalations from decomposed matter filled the air with pestilential diseases, which, assisted by famine, completed the desolation of the unfortunate district, whilst the losses to Government from this storm and those of the two preceding years were estimated at the enormous amount of *nearly 24 lakhs of Rupees, the loss of life recorded being 19,000 souls and 49,000 head of cattle*." Captain Spens, who witnessed the gale of 1850-51, recorded his opinion that an embankment of certain given dimensions would have sufficed to withstand even the sea-storm of 1833, or any other similar visitation. On his data Captain Beadle actually commenced operations. Captain Short is of opinion that a section which when consolidated shall have its crest 10 feet broad and 15 feet above high spring tide level, or three feet above the most extraordinary storm level on record, with an exterior slope of five feet and interior of two and a half feet to one foot (well sodded), and the alignment carried continuously up the great inlets to a safe point to the interior, so as not to be taken in flank, will meet every contingency.

Liability and Risk of Government—It was found by the Committee of 1839 that the lands of the Tumlook Estate were so assessed in the Sudder Jumma as to include a tax of one and a half anna per beegah for protection by embankments, the management of which was undertaken by the Government, and further, that the obligations regarding maintenance of embankments in Hudgelee rested on the same general ground. Between 1798 and 1833, or during 35 years, the expenditure was about Rs. 8,75,000, whereas, according to the tax of one and a half anna a beegah included in the rental, a sum of Rs. 35,00,000 was available, and had this been spent with good judgment the country would have been protected against the gales of 1831, 1832, 1833, whereas, the loss to Government was upwards of Rs. 24,00,000, owing to absence of protective works on a scale proportionate to the

requirements, not to mention that Hidgelee was thrown back half a century. For the sake, therefore, of the land and salt revenue, and equally for the permanent security of a great community, and also year by year to diminish the notorious malsubrity of the district, it is expedient to carry on with vigour the protective works, a task which at this date comprises only the completion of the great sea line in Southern Hidgelee, all other works having been finished. Failing the timely completion of the Sea Dyke, the Government will, in the event of an extraordinary sea-storm, lose some 10 lakhs of value of earth-works and drainage sluices, and the remissions will be commensurately heavy, whilst the probable loss of lives and cattle may be in proportion to the false security now enjoyed by the population. Embankments are useless without drainage, and Captain Beadle carried out "a splendid system of sluices."

Resumé. Captain Short shews that embankments are absolutely necessary to keep out ordinary spring tides, which would otherwise flow over the level tracts to the interior, that they are the means of affording protection to the agriculturist and salt manufacturer, that thereby the local rain is confined for the purpose of rearing the magnificent crops for which Hidgelee is now so happily known, that a perfect system of drainage has been organized by means of sluices whereby to pass off during ebb tides excess local rain, and thus prevent the crops from rotting, that the alignment together with the interior roads provide at all seasons uninterrupted communication throughout the embanked district, that the health, comfort, and material prosperity of the population is yearly on the increase, owing to security from tidal action, and the sweetening influence of so many years of local rain on the land and village tanks, that the land-owners, after hoarding up grain for two or three years' consumption, to provide against the probability of another visitation from the sea, the Dyke being yet incomplete, have every facility to convey the rice to any part, and thence by water to Calcutta and elsewhere, that the Government has undertaken the maintenance of the embankments, and having assessed the Pergumnahs at one and a half anna per begah for the purpose, are legally bound to provide efficient protection, that it is false economy to undertake only half measures, that in every part the actual datum line wherefrom to raise the embankment is known by the rise of spring tides, that past experience is a register to show that sea inundations occur once every 10 or 15 years, that the cyclone wave has been seen to rise and been

measured at nine feet above ordinary spring tide level; and that the most extraordinary visitation on record afforded proof that it rose from 10 to 12 feet above it; that the work is more than three-fourths completed; indeed the drainage works have been carried out, and the Sea Dyke is the only incomplete work.

Present Condition of the Embankments.—Southern Hidgellee is bounded to the south by the sea coast extending from the mouth of the Soobunreekah to west to mouth of the Russulpoor River to east, a length of about 36 miles; to the east and north by the Russulpoor River and its branch the Bagda; and to west by the Baleeghy River and the open country, and contains an area of 2,66,703 acres, or 417 square miles. Of the entire area, 3,02,340 beegahs are cultivated, whilst 1,22,749 are given up for fuel lands and the manufacture of salt. Of the 22 embanked Pergunnahs, nine only are permanently settled, the remainder only temporarily, and as these latter will be resettled in 1868. The revenue paid annually by the embanked Pergunnahs for the cultivated areas, is Rs. 1,52,434, or about eight annas per beegah, whilst a further sum of about Rs. 1,50,000 may be assumed to be realised by the land-owners from crops, so that a sum of Rs. 3,02,434 is yearly secured by the protective works. There are 1,71,555 beegahs given up for fuel and salt lands within Southern and Northern Hidgellee, and about 13 lakhs of maunds of salt manufactured, realising a revenue of about 50½ lakhs of Rupees; and deducting therefrom the probable cost of manufacture, with the cost of Establishments, the actual profit to Government is about 43 lakhs of Rupees. To preserve this the Sea Dyke must be completed.

Proposals.—Of the protective works in Southern Hidgellee, the country bordering the sea and on the Great Soobunreekah River to south-west of the district is perfectly protected against any visitation, by most efficient lines of work. The great Sea Dyke, extending from the sand-hills on coast at Deegah to the Russulpoor River at Shamchuck, and bounded to the north by the line of interior road from Deegah to Shamchuck, requires completion. From Deegah to Shamchuck the alignment is 54 miles and 3,554 feet in length, of which one mile and 2,010 feet consist of sand-ridges at Dowlutpoor, the remainder being an artificial Dyke, of which 15 miles and 3,202 feet have been completed. The incompleted lengths, aggregating 37 miles and 3,622 feet, must be prosecuted with vigour, and may be completed at an estimated outlay of Rs. 5,59,145, and it is hoped that in the interval the coast will not be visited by a cyclone. The interior embankments situated to the north of the interior line of road, and encircled to the west and south by the Russulpoor

River and its branches, and to west by the Baleeghy Channel and the open country, these are completed. The lines of interior embankments may be said to have been completed, as also all the drainage works, and if the Sea Dyke were similarly so the prosperity of Southern Hidgellee would be permanently secured, and the Government would be justified in doubling the rental when the temporarily settled estates are re-assessed in 1868.

Estimate and Statistics.—A detailed estimate is submitted providing for the final completion of the Sea Dyke. At present the work is in full progress, upwards of 5,000 men being constantly employed; and if funds be supplied, in order that timely advances may be made at the commencement of next working season, there is reason to conclude that 10,000 may be massed on the works. In Southern Hidgellee there are 54 miles and 3,554 feet of a Sea Dyke, 15 miles and 772 feet of heavy embankments to the south-west, also 81 miles and 3,757 feet of important interior embankments, with 148 sluices for irrigation and drainage; moreover, there are upwards of 48½ miles of interior roads, with 43 drain-bridges in fine order, connecting all parts of the interior. Indeed, when the Sea Dyke is completed, Southern Hidgellee will exhibit a perfect system of protection, with a complete system of drainage and irrigation, and be a model for all other districts. There are 23 Pergunnahs embanked, comprising an area of 266,703 acres, or 416.721 square miles, the cultivated area consisting of 3,02,340 beegahs, whilst 122,749 acres are waste. Again, upwards of 1,22,749 beegahs are given up for salt and fuel lands, which pay no tax for the protection afforded to the salt manufacturers.

Northern Hidgellee will be described in a separate Report. The embankments there may be said to be completed, requiring only annual repairs, and consist of about 177 miles and 3,652 feet, with 61 sluices for irrigation and drainage; also 31½ miles of interior roads, which tend to open out the communications of this part of the district. The northern part comprises 10 embanked Pergunnahs (Doroo Doomun and Umersee not being included), and these contain an area of 265,698 acres, or 415 square miles; but a small portion is waste or uncultivated, whilst 90,101 beegahs are given up for salt and fuel lands. The Sudder Jumma or rental is Rs. 2,23,516, and when the seven temporarily assessed Pergunnahs are resettled, the rental may be safely increased some Rs. 40,000, in proportion to the protection afforded, and the system of irrigation and drainage. The amount yearly levied by Government for maintenance of protective works, is Rs. 33,647. Upwards of 18 lakhs have been received on this account since 1798, and certainly 12 lakhs have

never been expended, so that there is a balance of 6 lakhs for future improvements.

A Special Report will follow to show what Government has done for the prosperity of Doroo Doonun. The appendix contains detailed figures, a memorandum by J. Bennett, Offg. Executive Engineer, Hidgellee Division, dated 27th April 1861, to accompany longitudinal Section of the Sea Dyke, and Captain J. Spens' Report written in 1850.

ADMINISTRATION OF THE STRAITS SETTLEMENTS.

1861-62.

Judicial.—The advantages of the District Courts were fully appreciated by the Chinese residing in the interior, and even amongst the Malays they were popular, no less than 257 cases having been filed during the twelve months at the District Court of Aloor Gajah in Malacca. The tranquillity of Penang was disturbed by the disputes between rival Chinese Secret Societies. In August there was a serious disturbance between the Tuah Peh Kong and Chin Chin Societies. In April a similar quarrel occurred between the Tuah Peh Kong Society on the one part and the Ho Seng and Ghee Hin Societies on the other. On both occasions recourse was had, with great success, to the expedient of appointing the acknowledged heads of Societies as Special Constables, and attaching them to Police Stations, so as to induce them to take a warm personal interest in the preservation of the peace. The pretensions of the Kling Societies also experienced a severe check, and their fraternities are described as rapidly falling into insignificance. Gambling increased. The Report is destitute of detailed statements but from the Appendix we learn that in Penang there were 263 civil cases filed and 203 determined; in Singapore 593 filed and 316 determined; and in Malacca 186 filed and 147 determined. In the Courts of Requests 2,785 cases were filed in Singapore, 3,889 in Penang, 647 in Province Wellesley and 1,813 in Malacca; of the whole 36 were referred to a higher Court, in the case of 3,764 judgment was given for the Plaintiff, and in the case of 572 for the Defendant. In Penang 4,597 crimes were reported, and 5,622 persons apprehended. In Singapore 6,848 cases were reported, and 8,105 persons apprehended.

In Malacca 1,505 cases were reported, and 1,458 persons apprehended.

Revenue.—From land there was Rs. 1,01,191 or a decrease of Rs. 19,508 from the previous year. From miscellaneous sources, such as pawnbroker's fees, tin and brick-kiln farms, there was Rs. 38,774; from excise Rs. 12,64,645; from assessed taxes Rs. 1,100; from law and justice Rs. 99,519; from Marine Rs. 25,043, from Public Works Rs. 56,795; and from "Miscellaneous General" Rs. 27,571. The undermentioned sums, shewing an increase of 1,28,464 Rupees over the receipts of the year 1860-61, may be considered as the revenue of the Straits Settlements during 1861-62 :—

		1860-61.		1861-62.		Increase.
		Rs.	...	Rs.	...	Rs.
Singapore	...	10,84,238	...	11,59,431	...	75,193
Penang	...	3,68,202	...	4,15,418	...	47,216
Malacca	...	1,64,716	...	1,70,771	...	6,055
Total		...	...	...	...	...
		16,17,156	...	17,45,620	...	1,28,464

Education.—At Singapore the Institution continued to maintain its high character; the average daily attendance was 194, or 22 in excess of the number during the previous year. The girls numbered 36. The inmates of the Malay Mission School numbered 55,—42 boys and 13 girls all boarders. The attendance at the Malay School in Campong Glam was extremely irregular, the average daily number of students was only 15. Of the Schools not connected with Government one of the most deserving of notice is that at Tanjong Pagar, established and maintained at the sole cost of Mr. Guthrie, the proprietor of the land in the neighbourhood of the village. The number of names enrolled was 57, viz., 48 Malays and 9 Chinese, and the average daily attendance is 45; 14 only learn English, and the remainder are taught the first simple rules of arithmetic, and to read and write in the vernacular. The Free School at Penang had on its lists the names of 304 pupils, furnishing an average daily attendance of 212, a great improvement upon the preceding year. At the Vernacular Branch School at Glugore the pupils numbered 50, with an average attendance of 28. The scholars, numbering 60, at the Protestant Mission School, were chiefly Eurasians or Chinese. The result of the examination of the students at the Christian Brothers' School was not quite so satisfactory as usual. Much credit is due to the Christian Sisters for

their charitable exertions in the cause of education. At Malacca the Free School still labored under the disadvantage of having no Head Master. Miss William's School was removed to a new building.

Public Works.—There were several repairs and additions. At Tanglin ten permanent barracks with out-offices, the hospital, mainguard, canteen, officers' mess-room, and subalterns' quarters were ready for occupation. The light house at Cape Rachado rapidly approached completion. The Supervising Officer of Public Works in the Straits Settlement, was made a Chief Engineer of the 3rd Class, and appointed Secretary in the Public Works Department.

Marine.—Consequent on the arrival from China of the small Steamers *Tonze* and *Mohr*, the three sailing Gun-boats, attached to the different stations in the Straits Settlements were thrown out of employment. The *Tonze* was attached to the Station of Malacca, and the *Mohr* to Penang. Orders were issued for the laying down of a buoy to mark the position of the "Charybdis Rock," and also for placing a sign-board on Balayer Point to give warning of the existence of the reef at the western entrance of New Harbour at Singapore.

Political.—The British Government assigned Pahang to the Bandaharah. An attempt on it had been made by his younger brother Inchi Wan Ahmud. The Tumongong of Johore died on 31st of January 1862, and was succeeded in the sovereignty of Johore by his eldest son His Highness Inchi Wan Abu Bakar. The Rajah of Quedah, at our request, stopped gang robbery on our frontier. The Sultan of Perak having failed to protect certain British subjects, Chinese, residing at the tin mines in Laroot, the Laroot and Sepatang rivers were blockaded by the three Straits Government Steamers, the blockade was efficiently maintained, and shortly after the close of the official year was attended with perfect success.

Military.—Colonel Shubrick assumed the command of the troops of the Straits, vacated by the removal of Brigadier Babington to a Brigade command in the Madras Presidency. The native troops mustered 1,470. The barracks in Fort Canining having been completed were occupied by the European Artillery, formerly located in the buildings on Pearl's Hill, which underwent alterations, with a view to their conversion into an Arsenal and Commissariat Store-room.

Financial.—

Abstract Statement of Receipts and Disbursements of the Straits Settlement for the year 1861-62.

RECEIPTS.		Amount.	DISBURSEMENTS.		Amount.
		Rupees.			Rupees.
I	Land Revenue, &c.		CHARGES AGAINST INCOME.		
	I. Land Revenue	1,01,191 B.	I. Revenue Department.		
	II. Miscellaneous	38,774	Land Revenue ...		39,514
	III. Abkaree	12,64,645	Customs ...		7,565
	II. Assessed Taxes, Income		Total ...		47,079
	Tax	1,110	II. Allowances and Assignments under Treaties and Engagements		68,871
X	Law and Justice	99,519			
XII	Marine	25,643	E Public Works		4,00,775
XIII	Public Works	56,795	CIVIL SERVICES.		
XV	Miscellaneous— Civil...	27,751	II. Salaries and Expenses of Public Departments		2,10,968
	Total	16,14,828 F.	III. Law and Justice		2,09,444
XVIII	ADJUSTED RECEIPTS.		IV. Police		42,321
	I. On account of General Government of India.		V. Education, Science and Art		13,669
	Postal	1,13,650	VII. Superannuation and Retired Allowances and Gratuities for Charitable and other purposes		51,154
	Convict Jail Manufactures	17,131	VIII. Marine		48,874
	Total	1,30,781	IX. Miscellaneous		1,04,405
	Grand Total	17,45,609	Total		10,81,610
			INTEREST.		
			II. On local Loans		29,571
			Total		12,27,131
			ADJUSTED CHARGES.		
			I. On account of General Government of India.		
			Postal		13,154
			Convicts		2,31,670
			Military		4,56,364
			Total		7,03,188
			H. M.'s IMPERIAL GOVERNMENT.		
			Miscellaneous		10,375
			Total		10,375
			Grand Total		19,40,594

Agriculture.—At all the convict detached posts, and at several of the Police Stations, nurseries of useful and ornamental trees and shrubs were established, and considerable progress was made in planting avenues of trees along the most frequented roads. In Penang there was serious disease in the Nutmeg Plantations. The cultivation of Cotton was introduced with tolerable success in various parts of the country, and Coffee was also tried by several persons. Tapioca and rice flourished.

Convicts.—On the 30th April 1862 the Convicts at Singapore numbered 2,055, viz., 1,935 males and 120 females; of the former 339 of the first class resided out of the Lines on ticket-of-loave, many being employed as private servants,—of this class not a single man was brought before the Police throughout the year. At Penang the number was 1,089, of whom 89 were women and 146 prisoners of the first class. The strength of the Convict body at Malacca on the 30th April was 514, of whom 37 were of the first class.

Commerce.—The value of the Imports into Singapore during the past year amounted to 5,57,25,104 Rupees, and of the Exports to 4,96,15,529 Rupees. The value of the Imports at Penang is stated to have been 1,68,87,434 Rupees, and of the Exports 2,03,63,653 Rupees. There was a marked improvement in the trade of Malacca, the value of the Imports having amounted to 45,12,099 Rupees, and of the exports to 35,35,745 Rupees, shewing an increase in the former of 3,55,698 Rupees, and in the latter of 5,89,508 Rupees over the Returns of 1860-61.

ADMINISTRATION OF

THE CUSTOMS, NORTH-WESTERN PROVINCES.

1861-62.

THIS Report is submitted by G. H. M. Batten, Esq., Secretary to the Board of Revenue.

The success of the Customs Department during the year was remarkable, the income from the North West Frontier line having exceeded one million sterling. The gross income was above 107½ lakhs of rupees as against 89½ lakhs in 1860-61. The following are the aggregate results :—

Department.	N. W. Provinces.	Punjab.	Total.
	Rs.	Rs.	Rs.
Salt, ...	59,49,844	34,87,091	94,36,935
Sugar, ...	5,69,784	7,05,279	12,75,063
Miscellaneous, ...	31,582	10,194	41,776
Total, ...	65,51,210	42,02,564	1,07,53,774
Add for Saltpetre Department, ...	.....	.....	32,784
Grand Total, ...	.....	Rs.	1,07,86,558

Of this above 8 lakhs are due to increased trade in sugar, together with increased duty on that article; and 10 lakhs to increased duty on salt. The percentage of the cost of collection fell from Rs. 10-3-9 to Rs. 9-7-6. The following table compares the results in both divisions of the line for the last three years :—

	Total Collections (excluding Saltpetre.)			
	1859-60.	1860-61.	1861-62.	Increase in 1861-62 over 1860-61.
	Rs.	Rs.	Rs.	Rs.
North Western Provinces, ...	40,70,223	55,75,633	65,51,212	9,75,579
Punjab, ...	27,06,620	33,73,779	42,02,564	8,28,785
Total, ...	67,76,843	89,49,412	1,07,53,776	18,04,364

Salt.—In February 1861 the Allahabad special line was abolished, the duty of eight annas per maund being transferred to

the frontier line ; so that this extra duty of eight annas is now levied, not only on the salt which would formerly have been taxed on passing eastward of Allahabad, but on all salt consumed throughout the North Western Provinces, Oudh, and the Punjab. The present increase of revenue from salt is attributable exclusively to this measure. Taking the average of the two years 1858-59 and 1859-60 at 27,34,700 maunds, and the average of 1860-61 and 1861-62 at 31,72,300 maunds, the average annual increase in the imports of the latter biennial period is shewn to be 4,37,600 maunds. Analyzing the average for the two periods as respects the North Western Provinces and Punjab divisions separately, it gives these results :—

	Average of 1858-59 and 1859-60.	Average of 1860-61 and 1861-62.
North Western Provinces, ...	16,27,623	19,71,000
Punjab, ...	11,07,089	12,01,300

This rise is ascribed to mainly the stimulus given to the salt trade by the return carriage for grain exported from the east to the famine districts, the salt itself likewise going to restore the balance of trade unsettled by that exportation ; and the opening of the salt market in Oudh to the western salts.

Sugar.—The increase in the quantity of Sugar exported was 7½ lakhs of maunds, being an advance of 58½ per cent. on the previous year's exportation. The quantities are 12 and 2-5th lakhs of maunds in 1860-61; and 19½ lakhs in 1861-62. The increase extending equally to refined and unrefined sugar, clearly shews that the doubling of the duty in the spring of 1861 had no effect in checking the trade. Its increased activity is due to a plentiful sugar crop, to the season being one which, under the Hindoo horoscope, was favourable to marriage contracts, and to the greater ability to consume this luxury arising from a plentiful harvest all over the country.

The *Miscellaneous* receipts were Rs. 41,776 as against 24,723 in 1860-61.

General Observations.—In 1843-44 the gross revenues (including the duty on cotton) were only 48½ lakhs. Accordingly the Board recommend that the Commissionership of Customs restored

to its original salary of Rs. 36,000 per annum. There was a decrease in smuggling. More accurate weights and scales will be provided from the Roorkee workshops. A quick-set hedge, which is so important to the efficiency of the Preventive establishment, was raised wherever practicable. The Agra traders complained of the high rates charged for Rail carriage, which neutralize the advantage of rapid transport. The rate is 25 per cent. higher than transport by boat. The traffic manager shews that salt-petre, sugar and salt are conveyed at the lowest possible rates. The receipts, in the recently organised Department, from the excise on salt produced with the salt-petre, were Rs. 32,783.

The following table shews the gradual rise in the Customs Collections for the North West Provinces :—

Year.		Amount.
1843-44	... ..	... Rs. 48,51,261
1844-45	... ..	... 57,74,399
1845-46	... ..	... 49,88,474
1846-47	... ..	... 64,55,210
1847-48	... ..	... 61,67,070
1848-49	... ..	... 56,92,861
1849-50	... ..	... 67,65,583
1850-51	... ..	... 53,66,720
1851-52	... ..	... 60,17,219
1852-53	... ..	... 60,46,446
1853-54	... ..	... 57,04,203
1854-55	... ..	... 61,63,276
1855-56	... ..	... 61,64,548
1856-57	... ..	... 68,34,990
1857-58	... ..	... 21,80,571
1858-59	... ..	... 64,29,980
1859-60	... ..	... 67,76,843
1860-61	... ..	... 89,49,328
1861-62	... ..	... 1,07,11,998

The following figures shew that the income of no Revenue Commissioner in the North West comes within fifteen lakhs of the large sum for which the Commissioner of Customs is now responsible.

Meerut, ...	... ..	... Rs. 69,20,973
Rohilkhund,	... ..	... 63,87,559
Agra, ...	... ..	... 73,30,855
Allahabad,	... ..	... 85,75,187
Benares, ...	... ..	... 80,31,828

Mr. Money, the Commissioner, shews in his Report that, at the present rate of duty, and the accepted annual average consumption of six seers per head, the ordinary day labourer does not expend more than $1\frac{1}{2}$ per cent. of his earnings in the purchase

of Salt. The flow of trade throughout the year shows that the increased importations during the past two years have been caused by the demand in Oudh arising from suppression of home manufacture, and by the wants of Goruckpore and the Eastern Districts, generally due to cessation of the supply from Oudh. It is more than probable that the Legislative measure, which is now under consideration, for extending to this Province the provisions of Act XIV. of 1843, Act XXXVI. of 1855, and Act XXXI. of 1861, will have the effect of still further increasing the imports of Western Salts during the current year and enlarging the Revenue. The Lieutenant Governor, reviewing the Report, desires the Board to convey the expression of his special thanks to the Commissioner for his most active and intelligent control of the Department, and at the same time to make known to the Collectors and their subordinates the satisfaction with which the highly favorable Reports of their exertions, which Mr. Money has found himself in a position to submit, have been received.

REVENUE ADMINISTRATION OF THE NORTH-WESTERN PROVINCES.

From 1st May 1860 to 30th September 1861.

THERE are two Reports on the Revenue Administration of the N. W. Provinces in 1860-61, the first being for 5 months from 1st May to 30th September 1860, and the second from the latter date to September 1861, the new revenue year. The results of that period will be best seen from the second Report for a complete year.

The Season and the Famine.—The period embraced in the second report comprises the time during which the Western portions of the Province were afflicted by famine. The whole of the results of that calamity are combined in the returns submitted. To the west of the limit of actual drought there was a margin of country in which the crops were very light; but even there, wherever the produce afforded any material surplus, the extraordinary prices of all agricultural products quadrupled the value it would previously have borne. The same remark applies to all those villages in the distressed tracts in which, either from lying low or being irrigated the harvest was saved. In these the profits were beyond all precedent. In the

Allahabad Division, the crops were, if anything, above the average; and those in Benares would have been so likewise, had not there prevailed a strong westerly wind in January and February, which, in some measure, affected the weight and character of the corn. In the Jhansie Division, excepting the pergunnahs of Kurrara and Puchore which suffered more or less from drought, the harvest was not much below the average. Jubbulpore was prosperous.

Rainfall.—The meteorological results may be taken as a very fair index of the pressure of the famine. The average fall in the Meerut Division (excluding Dehra) was little above 10 inches, that is, less than one-third of the ordinary average fall; and from some quarters the Registers were almost uniformly blank throughout the season.

	Inches.		
Dehra ...	48.6	Jaloun ...	Return defective.
Scharunpore ...	18.9	Jhansie ...	21.1
Moozuffernugger ...	15.1	Lullutpore ...	46.6
Meerut ...	6.9	Humeerpore ...	6.7
Boothundshuhur ...	1.3		
Allypore ...	12.4	Average of Jhansie Division	15.5
		Cawnpore ...	11.2
Average of Meerut Division	12.2	Futtelpore ...	28.0
Kumaon ...	34.3	Banda ...	31.3
Gurhwal ...	35.5	Allahabad ...	38.6
Average of Kumaon Division	33.3	Average of Allahabad Division	26.4
Bijnour ...	21.4	Goruckpore ...	40.1
Moradabad ...	15.3		
Budaon ...	15.1	Average of Goruckpore Division	49.1
Bareilly ...	19.7	Azingurh ...	29.7
Shahjehanpore ...	20.8	Jounpore ...	No return.
		Mirzapore ...	37.7
Average of Rohilkhand Division	18.3	Benares ...	21.6
Muttra ...	11.3	Ghazeepore ...	28.4
Furruckabad ...	15.1		
Mynpoorie ...	17.9	Average of Benares Division	32.2
Agra ...	11.9	Saugor ...	33.8
Etawah ...	21.9	Dumoh ...	39.0
Etah ...	11.9	Jubbulpore ...	31.2
		Seonee ...	24.6
Average of Agra Division	15.6	Mundlah ...	45.3
		Hushungabad ...	36.1
		Baitool ...	25.3
		Nursingpore ...	36.7
		Average of Jubbulpore Division	31.4
		Total average...	22.8

Land Revenue.—The aggregate demand was Rs. 4,14,30,011, as against Rs. 4,17,88,814, in 1859-60. The main cause of decrease was the revision of assessment in Banda, where nearly three lakhs of Rupees were struck off the Rent-roll; 95 per cent. was collected. The balance stood at Rs. 20,69,012, which exceeds by little more than *eight* lakhs, the balance of the preceding year. The increase is due exclusively to the drought, otherwise the Government demand was realized with very great punctuality. The entire demand for the year of distress in the eleven districts which suffered, amounted to a little above Rs. 1,48,00,000, of which about Rs. 1,35,00,000 were collected, leaving a gross balance of little above 13,00,000,—that is less than 9 per cent. on the demand. Of this amount, Rs 67,784 are nominal. The ordinary balance in these districts, in an average year, may be taken at about two lakhs of Rupees. Deducting that, 6 per cent. is the net balance attributable to the famine. The Board say—"in a year of such extensive failure, so complete that in some tracts the traveller for miles could hardly see a blade of grass, it speaks highly for the moderation of the existing settlements, that, with the most considerate and lenient treatment, the whole demand was realized within the year, with the exception of an insignificant percentage of balance."

Coercive Processes.—There was a decrease in the aggregate number of dustucks issued of above 3,000. The difference would have been greater, but for a slight increase in the western districts. In Kumaon, Allahabad and Goruckpore not an estate was sold, farmed, transferred or sequestered for land revenue. There were in all 11 sales, 47 farms, 34 transfers and 25 sequestrations.

Rent Suits under Act X.—These increased from 12,431 in 1859-60, (or 24,435 in the Revenue year) to no less than 45,220 in the year under report. The great proportion of cases (29,227) were for arrears of rent. The increased number, considerably above the average of the old summary law, is attributed to the popularity of the Collector's Court under the new Act, and partly also to the rule, which, instead of permitting a number of defaulting tenants to be included under one plaint, requires a separate suit to be instituted for each defaulter. The increase will probably go on advancing.

The number under each class of cases, was as follows :—

	Instituted.	Decided.	Pending.
I. For Pottas	4,798	3,550	1,248
II. Illegal exaction	784	731	53
III. Enhancement or abatement of rent	1,817	1,718	99
IV. For arrears of rent	29,227	26,357	2,870
V. For ejection	2,338	2,160	178
VI. For recovery of possession	3,456	3,024	432
VII. Distraint	2,619	2,542	77
VIII. Suits against agents	181	165	16
Total	45,220	40,247	4,973

Appeals to the Commissioner decreased from 179 to 115. The appeals to the Collector slightly increased from 1,416 to 1,661.

Abkuree.—The excise revenue declines with the prospect of scarcity, but the loss of the year little exceeded Rs. 70,000 :—

	DEMAND.		COLLECTED.	
	1859-60.	1860-61.	1859-60.	1860-61.
Meerut	2,54,635	1,76,267	2,48,356	1,65,516
Kumaon	14,151	5,008	14,154	4,014
Rohilkund	3,60,400	3,26,968	3,11,444	2,62,147
Agra	3,61,733	3,00,409	3,54,050	2,48,478
Jhansie	82,055	87,992	81,454	76,119
Allahabad	5,39,330	5,68,838	5,33,777	5,62,271
Goruckpore	2,24,526	2,32,655	1,97,593	2,21,800
Benares	5,45,784	6,17,145	5,34,001	6,09,598
Jubbulpore	2,36,544	2,91,161	2,36,127	2,89,347
● Total	26,19,161	26,06,443	25,10,956	24,39,290

Stamps.—The revenue advanced by a rapid rise from Rupees 13,68,637, to Rupees 24,34,671,—showing an increase of Rupees 10,66,034, or about 80 per cent. This prosperity is due to the new Stamp law, and is in part ascribed to the Law of limitation.

Total Revenues.—The entire Revenues collected under the administration of this Board were

Land revenue	...	Rs. 3,93,60,999
Ditto not on the rent-roll	...	" 5,71,818
Outstanding balances	...	" 10,76,788
Surplus tulbanah	...	" 20,241
Abkaree	...	" 24,39,290
Stamp	...	" 24,34,671
Sayer revenue	...	" 83,303
Sale of confiscated lands	...	" 2,52,071
Total	...	Rs. 4,62,39,181

To this may be added Rs. 47,85,972 in the Salt Department, and Rs. 16,27,446, in the Income Tax Dept., making a Grand total of Rs. 5,26,52,599 realized from 1st Oct. 1860 to 30th Sept. 1861.

Disappearance of the Famine.—"It is most satisfactory," writes the Commissioner of Meerut, "that, after travelling over a large tract of country, I can report that the effects of the famine have disappeared. In a round of between 300 and 400 miles, I do not think I have seen 50 acres of land which was ordinarily cultivated lying waste, and I have seen many acres which before the drought were left uncultivated broken up and bearing or promising to bear crops. All accounts confirm the impression, based on a tour through the southern and south-western part of the Meerut district, the centre of that and the Mozuffernugger district, and both sides of the Seharunpore district, that neither the loss of men nor of cattle has in the least affected the extent of land under crop or tillage. Perhaps such fine crops and an equal breadth of cultivation have seldom been seen in the districts of this division as after the rains of 1861." Mr. Lowe writes from Boolundshuhur that "the out-turn of the Khurreef is such as has not been witnessed for the past 20 years; thus, through the bounty of Providence, we begin the current year with cheerful prospects." And Mr. Prinsep adds that the crops in Allyghur "are the finest and heaviest that have been seen for many a year, and, barring accidents, the out-turn will probably far exceed that of any year since 1849." So in respect of the Agra Division, Mr. Harvey reports:—"In June 1861, the rains commenced with a promise which has been abundantly realized; the country is covered with cultivation everywhere; famine has disappeared, and the cheapness of grain, not its dearness, is now beginning to be a subject of prospective complaint;—as a prosperous zemindar remarked to me at Shekohabad ten days ago, 'profits on 20 maunds of grain this year would not exceed those upon 10 maunds last year,' a fact which, to my mind, was full of satisfactory promise, though he failed to see the advantage of possessing more unsold grain than he could consume with its security against prospective failure of crops and preparedness for possible advance of prices." The same is reported of Muttra and Rohilkund.

Statistics, and Business Disposed of.—The following abstract, by Divisions, will shew the comparative heaviness of each Charge.

DIVISIONS.	Area in square miles.	Mehals.	Population.	Land Revenue on Rent-roll.	Business cases.		Letters.		Expense of collecting Revenue exclusive of Heads of Offices and Sudder Establishment.	9.	Percentage of expense on column 5.
					Disposed of.	Pending.	From Collector to Commissioner.	From Commissioner to Collector.			
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Meerut	11,139	9,503	41,40,145	69,96,889	70,337	4,431	3,173	3,176	2,02,859	214	4
Kumaon	11,000	5,475	6,05,910	2,02,597	2,968	140	78	112	.....	0	0
Rohileund	12,544	17,430	49,11,038	62,88,781	64,633	5,455	2,408	1,610	1,98,736	3	6
Agra	9,779	8,529	44,77,799	74,34,122	69,874	5,205	2,402	2,542	2,65,743	3	0
Jhansie	5,737	3,580	11,48,158	31,02,500	30,670	4,579	1,008	1,440	1,39,194	4	7
Allahabad	9,730	8,657	38,81,089	68,97,248	37,064	5,641	2,177	1,871	2,10,174	3	0
Goruckpore	7,343	9,237	30,54,086	21,30,300	16,484	2,307	472	828	51,444	2	6
Benares	12,896	16,539	63,49,396	60,02,005	50,165	7,594	2,577	2,123	1,18,788	115	7
Jubbulpore	32,887	9,562	21,17,614	23,35,619	29,684	2,544	2,055	2,229	1,14,393	414	3
Total	1,12,555	88,512	3,06,85,235	4,14,30,011	3,71,879	37,896	16,350	15,931	13,01,331	3	3

Benefit of European Capital.—Mr. Manderson, of Dehra Doon, remarks :—"There can be no doubt that, even to the landowner himself, whose estate is sold and purchased by an European, the loss, although severe, is not so complete as when the grasping native creditor is the purchaser. In the case of small zemindars who were found on the grants, they have, since their bestowal on European landlords, materially increased in substance, and the owners are too glad to retain steady residents on their lands to carry out the griping and ruinous exactions of the native money-lender." In the Meerut district, Mr. Michel, an enterprising capitalist, belonging to the Railway Department, is about to purchase confiscated estates assessed at nearly a quarter of a lakh of rupees per annum. Great expectations are reasonably entertained of the benefits, direct and indirect, which the presence of European capital and energy in this district will afford in stimulating production and holding out improved agricultural methods for the imitation of the people. The total area mapped during the last season was 99,303 acres, at a cost of 3,994 Rupees, giving an average of Rupees 40-3-0 per 1,000 acres.

Extension of Opium Cultivation.—The cultivation of Opium was extended with great vigor and marked success, under instructions from the Calcutta Board, by the Opium Agent at Ghazee pore, who sought the aid of our Revenue officials in inducing the cultivators to receive his advances. "The net increase of cultivation over 1860-61 is 60,503 beegahs; and 32,476 over our largest year of cultivation known in this Agency, when it was 1,87,924 beegahs in 1853-54." In the present season there are 2,20,370 beegahs under poppy cultivation. The increase of this crop tends to the security of the Revenue, and to the present material prosperity of the cultivators. Whether, on higher considerations, the success of the Government Agency in increasing the growth of Opium and stimulating its traffic be matter for congratulation is not equally certain. The Board are not aware what determination has been arrived at on the suggestions which they ventured to submit for disconnecting the Government from these proceedings in the North Western Provinces.

Inland Trade of Goruckpore.—The following is an abstract of the tables of Export and Import of the Goruckpore district, prepared by the Commissioner :—

1. Value of Exports by land, chiefly to the westward, Mirzapore, &c.,	...	Rs. 1,40,000
2. Value of Exports by water, chiefly to the westward, Patna, &c.,	...	" 10,44,000
3. Value of Exports through the district from Nepal,	...	" 5,45,500
Total value of Exports,	...	" 17,29,500
Imports,	...	" 6,31,525

The chief exports are Grain, Catechu, Sugar, Linseed, Timber, Hides. Among the imports may be mentioned Cotton, (1,60,000 lbs.) Iron, Brass vessels, and Cotton goods. The following transfers of territory were made from the jurisdiction of the Board.

Jubbulpore Division,	...	23,35,619
Transfers from Jhansie Division,	...	4,11,286
Ditto to Nawab of Rampore,	...	1,29,000
Total,	...	Rs. 28,75,905

Indigo—The Jounpore Collector reports that the cultivation of Indigo would appear to be very profitable, and natives are starting factories on every side, to the ultimate detriment of the European Planters; as although they cannot produce as fine a dye for want of expensive machinery, they can work so much cheaper and live cheaper. The land available for Indigo is also limited.

The Lieutenant Governor's remarks, in reviewing the Report, shew the entire outlay on account of the Famine:—

Expended in the distribution of food,	...	Rs. 5,41,783
Ditto in advances for the purchase of seed and cattle,	...	" 3,40,113
Ditto expended on minor Relief Works,	...	" 29,918
Ditto by Government only on Public Relief Works,	...	" 9,14,294
Possible Remission of Revenue,	...	" 11,00,000
Total,	...	Rs. 29,26,108

The statement showing the sums realized by the sale of confiscated land tends to prove, that there is great competition for land in these Provinces. On the subject of English settlers His Honor is glad to perceive that, in Mr. Manderson's opinion, ousted native proprietors prefer that their lands should fall into the hands of a European rather than into those of their native creditors. The Lieutenant Governor has elsewhere recorded his opinion of the good results which may be expected to attend the presence of European Capitalists, such as Mr. Michel, as proprietors of land in these Provinces, and he hopes that, with the example of this

enterprising gentleman before them, many will be found to establish themselves in the like capacity. There is still believed to be, in different Divisions, a large extent of confiscated land undisposed of, and it is the wish of the Lieutenant Governor that, in eventually dealing with this property, the importance of encouraging European settlers of respectability and intelligence should not be lost sight of. Before any decisive steps can be taken in this direction, however, the confiscation statements called for three years ago, must be submitted. On the subject of Opium he says, "this is no place for discussing the morality of the measures taken by the Government of India, for extending the cultivation of the poppy plant, and stimulating the traffic in opium. The Government of India, to whom the minutes mentioned in paragraph 144 were forwarded with Mr. Secretary Muir's letter, No. 169, dated 24th December 1858, has made no sign in reply. But in so far as the immediate effect is concerned, there can be no doubt that 14 lakhs of Rupees cannot circulate in the district of Goruckpore, without adding immensely to its material wealth, and to the prosperity of the classes who undertake the cultivation. It is not disputed that the same results might follow from leaving this profitable cultivation free, and levying a heavy export duty on the manufactured article, as with Malwa Opium; but that is a point for the consideration of the Government of India; and the Sudder Board of Revenue have done their duty in laying the views which they hold on the subject before that Government."

RAILWAYS.

1861-62.

MR. Juland Danvers, Government Director of the Indian Railway Companies, furnishes his third report on this subject for the year 1861-62 to Sir C. Wood. An expenditure of about seven millions sterling was incurred, and 760 miles of new line opened for traffic. The total length of railways to be constructed is 4,653½ miles of which, on 1st of January 1862, there were 1,609½ miles opened, nearly half of which, 759½, had been opened in 1861. There remain 3,044½ which, it is calculated, will spread over 1862 and the next 3 years. The works on three sections of railway, which had been sanctioned, were suspended; viz., the branch of the East Indian Railway from Allahabad to Jubbulpore, the extension of the Punjab line from Lahore to Delhi, and the section between Sholapore and Bellary on the Bombay and Madras line. Arrangements were made for the E. I. line to com-

mence operations on the first. The Punjab Railway Company were authorized to take measures for issuing shares to the extent of two millions and a half for the second, and to raise such amount at once as shall be sufficient to allow the more formidable works, such as bridges, to be commenced in 1862. For the third, new surveys were made. The work of constructing cross-roads to connect the railway stations with the existing high roads of the country, was vigorously undertaken by the local authorities in various districts. The Home Government sanctioned the execution, by the direct agency of local officers, of a light railway from the Iron Works on the Kumaon Hills to Khoorja in the Doab. Other projects were taken up under the names of the "Indian Carrying Company," the "Indian Tramway Company," the "Branch Railway Company," the "East Indian Cotton" and the "Bombay Land Reclamation" Companies.

During the year 407 ships were employed in shipping materials for railway companies to the value of £1,669,443. This, added to the consignments of former years, makes a total of 2,459,928 tons, which had, up to the 31st December 1861, been despatched to India by the railway companies. Three thousand and twelve ships were employed on this service, of which thirty-nine were lost. On the 31st of December 1861 the total number of

Shareholders in England was	...	18,933
Shareholders registered in India	...	536
Native ditto ditto	...	297
Number of Debenture Holders	...	6,691

Total No. of Proprietors	26,160
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The total number of persons employed on the open lines on 30th of October 1861 was 34,329, out of which 32,148 are natives of the country. On the 31st March last, out of 1,122 persons employed as artizans in the locomotive and carriage departments of the G. I. P. railway, 1,066 were trained in India, and 56 were engaged in England. Of the 1,066, 82 were Europeans, 24 Eurasians, and 960 Natives. The total number of accidents on all the railways in India is as follows:—

Passengers killed	4
Ditto injured	5
People connected with the railway killed	42
Ditto ditto injured	36
Ditto not connected i. e. trespasses and suicide killed	7
Ditto ditto injured	4

Finance.—The financial position of the Companies was more satisfactory than could have been expected at the commencement of the year. Between the 1st May and the end of December a sum of 4,648,641*l.* had been raised by the Companies, and this

has been since increased by upwards of 4,000,000*l.* While the sum thus raised by the Companies has been more, the expenditure has been less than was expected. It was calculated that 6,000,000*l.* would be spent in India, and 2,000,000*l.* in England. In India the actual expenditure has been about 5,150,000*l.* : in England 1,700,000*l.*

	£
Total sum raised during year ending April 30th, 1862	8,668,617
Ditto ditto expended	6,716,183
Credit account May 1st, 1862	2,443,045
Sums to be raised by the Companies in 1862-63	5,739,008

Total 8,182,853

Total estimated expenditure 1862-63 7,104,350

The amount estimated to be required for each Undertaking as now sanctioned is £57,520,000. The total amount advanced for Expenditure to 30th April 1862 (partly estimated) is £40,626,317. The average cost per mile, upon the whole, is about 12,360*l.* ; but before the railways are completely finished, including a small allowance of double lines, 13,000*l.* will probably be nearer the mark, which would make the total capital required upwards of 60,000,000*l.*

Railway.	Length.	Total Cost.	Average Cost per Mile.
		£	£
East Indian ...	1,364	23,000,000	16,862
Great Indian Peninsula...	1,266	12,000,000	9,476
Madras ...	850	8,500,000	10,000
Bombay and Baroda ...	310	4,000,000	12,900
Scinde ...	114	1,600,000	14,000
Punjab ...	252	2,500,000	10,000
Delhi and Punjab ...	280	3,000,000	10,700
Eastern Bengal ...	110	1,500,000	13,636
Great Southern ...	78½	600,000	8,000
Calcutta and South Eastern ...	29	380,000	13,450
	4,653½	57,520,000	—
Average cost upon whole system ...	£12,367 per mile.		

The amount of guaranteed interest paid by the Government during 1861 is as follows :—

In England	...	...	£1,638,679
In India	...	...	21,211
Total	...	...	£1,659,890

Total amount of interest paid up to end of 1861 is £6,286,895.

Traffic.—The open lines to which the following traffic returns apply, are portions of the East Indian, Great Indian Peninsula, Madras, Bombay and Baroda, and Scinde.

East Indian.—Total number of Passengers for year ending 30th June 1861.

Bengal Division	...	...	1,650,447
N. W. Provinces Division	...	...	226,811
Profits Bengal Division	...	...	£153,139
— N. W. P. Division	...	...	61,441

The traffic returns apply to 371 miles only, 248 being in the Bengal, and 123 in the North West Division; 563 miles were open on the 31st December last, viz., 320½ in the Bengal, and 243½ in the North West Division; since that time an addition has been made to the Bengal line, which now reaches to Mon-ghyr. The distance between this place and Allahabad, where the North West Division now begins, is about 332 miles.

Great Indian Peninsula.—The length of this railway now open is 437 miles, consisting of 200 in the North East line, 204 in the South East, and 33 of double line common to both. The break at the Ghats, which separates the Concan from the Deccan, still exists, thereby rendering the lines comparatively useless for traffic from the coast to the interior. The direct cost to which the Company was put during the past year by conveying the traffic across the Ghats was 45,851*l.*, or nearly 17 per cent. of gross receipts.

Account for year ending June 30th, 1861.

Total number of passengers	...	...	2,013,942
Net receipts	...	...	£69,779

Madras.—Two hundred and ninety-nine miles of this Railway were open for traffic on the 1st January, of which one hundred and sixty-one and three-quarters (161¾) miles were added during the past year, viz., 9½ in the Eastern and 40 in the Western Division of the South-West line, and 27 in the North-West line, the remaining three-quarters consisting of a short branch at the Madras terminus. By this time the whole of the South-West line from coast to coast is finished. A great improvement must take place before the line can be considered as in a satisfactory condition. There is reason to hope that this amendment will soon take place, the detached portions of the open line having now been joined and a through traffic established. With a proper system of cross roads to join the stations and the existing roads, with good traffic arrangements, and suitable

rates and fares, the railway must absorb the whole traffic of the district through which it runs, and this is considerable. The line will have been constructed at a more moderate cost than most of the other railways, and the works are equally substantial and well executed. A smaller return will accordingly be required to yield a fair profit. The cost per mile of the line just opened from Madras to Beypore is estimated at about 9,000*l.*; while that of the whole undertaking, including the North East line, is taken at about 10,000*l.*, which is below the average.

Number of passengers 1860-61	1,021,755
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Net receipts	£19,746
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Bombay and Baroda Railway.—The length of this line now open is 132½ miles, extending from the Mhyce river near Baroda on the North to Bulsar on the South. Of these, 96½ were opened during the past year. The traffic has been going on steadily, and the advantages which this line possesses in its favourable gradients have been proved by the comparatively large weight which one engine can draw. By this means a considerable saving will be effected in the locomotive portion of the working expenses, as well as on the wear and tear of permanent way and rolling stock.

Total number of passengers	990,615
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Total receipts	£15,041
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Scinde.—This line was opened for traffic on the 11th May 1861. No report is given for the 6 weeks ending June 30th, 1861.

Indus Flotilla.—The "Stanley" steamer started on its first commercial voyage on the 22nd May, having previously accomplished the trial trip from Kotree to Mooltan and back successfully. It is hoped that, in the course of this year, a regular and speedy service will be established between the railway terminus at Kotree and Moulton.

Punjab Railway.—The section of this line between Lahore and Umritsur, a distance of thirty-two (32) miles, was opened for traffic on the 10th April last. The event excited much interest among the natives, who have shown great eagerness for railway travelling.

Calcutta and South Eastern Railway.—The first section of this line, viz. from Calcutta to Chappahattee, a distance of 16 miles, was opened in December last. The remaining 13 miles will probably be completed and ready for traffic in June of this year.

Great Southern of India Railway.—The whole of this railway, viz. from Negapatam to Trichinopoly, was opened for traffic on the 11th March last. The section between Negapatam and Trivatore (14½ miles) had been opened on the 15th July, and from Moatan to Tanjore, a distance of 34 miles, on the 2nd December 1861.

Rates and Fares.—

Railway.	Passenger Fares.					Goods' Rates.				
	1st Class.	2nd Class.	3rd Class.	4th Class.	1st Class.	2nd Class.	3rd Class.	4th Class.	5th Class.	
	Per mile.	Per mile.	Per mile.	Per mile.	Per ton per mile.	Per ton per mile.	Per ton per mile.	Per ton per mile.	Per ton per mile.	
East Indian ...	$2\frac{1}{4}$	$1\frac{1}{2}$	$d.$	$d.$	$d.$	$1\frac{1}{2}$	$1-11$	16	$6\frac{3}{4}$	
Calcutta and South Eastern ...	$2\frac{1}{4}$	$1\frac{1}{2}$	$d.$	$d.$	$d.$	$1\frac{1}{2}$	$1-11$	16	$6\frac{3}{4}$	
Great Indian Peninsula ...	$2\frac{1}{4}$	$1\frac{1}{2}$	$d.$	$d.$	$d.$	$1\frac{1}{2}$	$1-11$	16	$6\frac{3}{4}$	
Bombay and Baroda ...	$2\frac{1}{4}$	$1\frac{1}{2}$	$d.$	$d.$	$d.$	$1\frac{1}{2}$	$1-11$	16	$6\frac{3}{4}$	
Scinde ...	$2\frac{1}{4}$	$1\frac{1}{2}$	$d.$	$d.$	$d.$	$1\frac{1}{2}$	$1-11$	16	$6\frac{3}{4}$	
Madras ...	$2\frac{1}{4}$	$1\frac{1}{2}$	$d.$	$d.$	$d.$	$1\frac{1}{2}$	$1-11$	16	$6\frac{3}{4}$	
Great Southern ...	$2\frac{1}{4}$	$1\frac{1}{2}$	$d.$	$d.$	$d.$	$1\frac{1}{2}$	$1-11$	16	$6\frac{3}{4}$	

The question of rates and fares naturally leads to an enquiry into the effects they will have upon the price in the market of the produce of the country, more especially cotton. The annexed account of imports of cotton into England during the last three years, shows how greatly the supply from India has been increased, in consequence of the price which the commodity has commanded in Lancashire.

**IMPORTS of Cotton into the United Kingdom for the Years ending
December 31st, 1859-60-61.**

Countries.	1859.	1860.	1861.
	cwts.	cwts.	cwts.
From the United States ...	8,586,672	9,963,309	7,316,969
Brazil ...	200,705	154,347	154,378
Egypt ...	336,313	392,447	365,108
British East Indies ...	1,717,240	1,822,689	3,295,004
Other Countries ...	105,401	86,304	91,619
Total ...	10,946,331	12,419,096	11,223,078

**COMPUTED Real Value of Cotton Imported into the United Kingdom
for the Years 1859-60-61.**

Countries.	1859.	1860.	1861.
	£	£	£
From the United States ...	23,627,772	26,597,208	26,549,717
Brazil ...	561,947	499,829	556,652
Egypt ...	1,104,766	1,246,346	1,279,840
British East Indies ..	3,204,748	2,997,000	7,278,537
Other Countries ...	263,327	226,747	275,309
Total ...	28,762,560	31,567,130	35,940,055

The charge for conveying cotton by railway is now from 1*d.* to 1½*d.* per ton per mile. The mode hitherto adopted of carrying it by bullocks and in country carts, involves an expense of about 3*d.* or 3½*d.* per ton per mile, and the cotton is so much injured during its transit that the cost of conveyance really amounts to about 4½*d.* per ton. The railway charges of 1*d.* and 1½*d.* exhibit, therefore, a very favourable contrast, and will enable the merchant to reduce the price at Manchester to 4*l.* or 4*l.* 10*s.* a ton, or nearly a halfpenny per lb. for all cotton brought from a distance of 300 miles in the interior.

THE ADMINISTRATION OF MADRAS.

1861-62.

THE appointment of His Excellency Lieutenant General Sir James Hope Grant, G. C. B., to the command of the Madras Army, and to the office of Second Member of Council, in succession to Sir Patrick Grant, G. C. B., and of the Right Reverend Frederick Gell, D. D., to the Bishopric of Madras, were the only two important personal charges at Madras.

LEGISLATION.—Act 24 and 25 Victoria, Cap. 67, under which the power of legislating for local purposes was restored to the Madras Government, was brought into operation on the 14th of January 1862. The Council sat nine times, its first meeting having been held on the 22nd of January, and its last on the 6th May 1862. During this period ten Bills were introduced, of which seven were passed, two were referred to Special Committees and one awaits the sanction of the Governor-General to its introduction.

The following Acts were passed

Act I. of 1862 for the levy of Port dues in the Port of Ganjam.

Act II. of 1862 to extend the provisions of Act XXV. of 1859, entitled an Act to prevent the over-crowding of vessels carrying Native passengers in the Bay of Bengal.

Act III. of 1862 for enabling the Commissioner of Police at Madras to make Bye-Laws for more effectually carrying out in the Town of Madras, the objects of Acts XIII. of 1856, and XLVIII. of 1860, and for the better and more effectual preservation of order therein.

Act IV. of 1862 to make better provision for the management of Boats and Catamarans in the Madras Rivers.

Act V. of 1862 for regulating the Bank of Madras.

Act VI. of 1862 to prevent damage to the Pier, to regulate the traffic, and to provide for the levying of tolls upon the same.

Act VII. of 1862 to exempt enfranchised Indians from the operation of Regulation IV. of 1831, and Acts XXXI. of 1836, and XXIII. of 1838.

JUDICIAL.—Civil—The number of suits instituted in

1861 was	..	...	...	...	...	2,82,976
1860	...	...	...	...	...	1,37,834

Excess 1,45,142

At the close of the year 1860, 68,855 original suits were pending on the files of the several Courts, giving a total of 3,51,831 suits which came before the several Courts, of which 1,85,651 or 53 per cent. were disposed of, leaving 1,66,180 pending at the close of the year; of these 65,092 or 39 per cent. were decided in favor of plaintiffs and 13,780 or 7 per cent. for defendants; 72,557 or 39 per cent. were privately adjusted or withdrawn; and 31,222 or 19 per cent. were disposed of in other ways; two

per cent. of the suits disposed of were tried by Civil and Subordinate Judges, and 98 per cent. by Principal Sudder Ameens, Sudder Ameens, District and Village Moonsiffs.

Connected with land rent or revenue	...	5,388
Otherwise connected with land	...	13,010
For houses or other fixed property	...	4,981
Connected with debts, wages, &c.	...	2,43,673
Connected with caste, religion, &c.	...	449
Connected with Indigo, Sugar, Silk, &c.	...	5,735

Table of Appeals.

	Regular.	Special.
Pending on 1st January 1861	21	592
Received in 1861	67	869
Total	88	1,461
Confirmed	15	513
Amended	2	10
Reversed	4	88
Remanded	2	5
Dismissed for default	0	57
Adjusted or withdrawn	1	16
Otherwise disposed of	1	2
Total	25	691
Depending on the 31st December 1861	63	770

The Government obtained authority to convert six of the Courts of Subordinate Judges into Small Cause Courts under Acts XLII. of 1860 and XII. of 1861. The new Courts are stationed at Chittoor, Cuddalore, Negapatam, Tanjore, Madura, and Tellicherry. There was an increase to the salaries of the District Moonsiffs, making

14 First Class Moonsiffs at	...	Rupces 200
32 Second do. at	...	150
79 Third do. at	...	100

Criminal Justice.—The number of persons brought before the Police Magistrates in 1861 for petty offences and under trial at the close of 1860, was 2,34,339, exhibiting an increase of 4,472, in comparison with the preceding year. 87,021 or 53 per cent. were acquitted, 96,035 or 29 per cent. were released on compromise, and 76,716 or 47 per cent. were convicted and

punished. The total number of cases of crimes and misdemeanors brought before the Police, Magistracy and Courts was 12,170. 18,814 or 58 per cent. were released by the Police and Magistracy, leaving 11,895 persons who were put upon their trial, of whom 1,891 were dealt with by the Magistracy, under Act VII. of 1843—6,524 by the Subordinate Criminal Courts, 3,104 by the Session Courts, and 376 by the Sudder Court. Of 378 prisoners whose cases were referred to the Sudder Court, 179 or 47 per cent. were acquitted, and 197 or 52 per cent. were convicted, the case of the remaining two prisoners having been remanded to the Session Court for disposal.

Mofussil Police.—Police arrangements were completed in Kurnool, North Arcot, Madras, South Arcot, Tanjore, and North Canara, during 1860-61; in Nellore, Cuddapah, South Canara, North Malabar, Salem, Madura, and Trichinopoly, during 1861-62. The operation of Act XXIV. of 1859 was extended to all the five remaining Districts of the Presidency, viz., Ganjam, Vizagapatam, Godavery, Krishna and Tinnevely during the year under review.

Statement of Detachments and Guards of Effective Troops and Veterans relieved by the Constabulary.

	Number of Detachments and Guards, European and Native off- cers.	Rank and File.	
Northern Division...	21	51	1,591 Exclusive of one Infantry Regiment at Russelcondah.
Ceded Districts and Division ...	2	7	122 Ditto of miscellaneous Guards at Bellary, Kurnool, and Cuddapah.
Centre Division ...	8	36	1,166 Do. do. at Vellore and Arcot.
Mysore Division ...	8	22	595 Do. do. at Cannanore, Mangalore, &c.
Southern Division...	10	23	573 Do. do. at Trichinopoly and Pallamcottah.
Total ...	49	139	4,047

Complete statistics of crime in the Presidency cannot yet be furnished from the Police Department. In thirteen out of twenty Districts the Police occupation was only progressive during the year, in eight Districts it was still incomplete.

Police operations commenced in

Ganjam	...	...	4th January 1861,
Vizagapatam	...	...	28th do. "
Godavery	...	...	15th June "
Kistna	...	...	6th Sept. "

Canara and North Malabar were entirely occupied by the Police. The Coimbatore and South Malabar Districts were similarly occupied. The entire Districts of Kurnool and Cuddapah were occupied, and twelve out of fifteen Taluks were taken up in Bellary. A moderate, but promising, amount of success was achieved in the detection of crime; and in the Cuddapah District a large number of convictions in cases of gang robbery were obtained. Several dreaded ruffians fell into the hands of the Police. Of 95 persons convicted, 75 were sentenced to fourteen years' imprisonment. The occupation of the five Districts, Nellore, North Arcot, South Arcot, Madras and Salom had been completed before the commencement of the year. Progress was made by the District Officers in the improvement of the condition of the Force, and in completing their instruction. The Inspector General made two tours during the year through the Northern Circars; and several Districts of the Central Range were visited by him. The Acting Inspector General inspected the Southern Districts and part of the Western Range. Nothing was done towards improving the material position of the now inefficient village or Municipal Police Institution. Steady progress was made in introducing system throughout the various branches of the establishment. The system of financial account, check, and audit laid down by Government, was carried out with success. Clothing and stores were supplied by contract, of better quality, and with greater punctuality. Police Schools were established in each District for teaching men of all ranks their duty, and increased attention was paid to the all-important matter of thorough professional training and instruction. In most Districts a really intelligent Police Officer aids the public prosecutor at the final trial of prisoners. The system of observing, reporting, and registering all crimes and occurrences affecting the public peace with certainty and accuracy, of communicating

them to the Magistracy, and of keeping cases alive until offenders are brought to justice, is gradually and progressively extending throughout all parts of the Force. The co-operation and support afforded to the Police by the European Magistracy was, in almost all Districts, most encouraging. A gradual improvement in the efficiency of the Police of several Districts in preventing crime was clearly perceptible, and affords grounds of confidence for the future. This progress is most apparent where the strength of the Police was most severely tested—in Bellary, Cuddapah and Nellore. There was reason to believe that the worst criminals were brought to justice.

<i>Presidency Town Police</i> —Total number of cases committed for trial at the Criminal Sessions 1860				...	2,25,966
Do. do, 1861				...	3,51,831
				Increase	1,25,865

Of 27,444 appealable suits, 12,340 were appealed, of which 4,338 were affirmed and 2,662 modified or reversed.

Total trials for petty offences 1861	...	...	2,34,339
Total number released	...	...	87,021
Ditto discharged	...	...	69,035
Ditto punished	...	...	76,716

Of crimes and misdemeanours there were

Cases	1860	..	..	...	9,817
Do.	1861	...	...	...	12,170
Persons	1860	...	..	...	24,730
Do.	1861	...	...	...	32,183

With regard to serious offences we have the following figures :—

	Cases.	Persons.	Convictions.
1860	122	168	71
1861	117	178	114

With regard to larcenies, the value of property stolen being in 1860 Rupees 38,268 and in 1861 Rupees 35,643, we have

	Cases.	Persons.
1860	222	275
1861	87	97

The total number of prisoners in the Madras Penitentiary during 1861 was 3,438; the total proceeds of their labor being Rupees 4,477-15-6. 170 inquests were held in 1861 being 7 more than in 1860.

Jails.—The new Prison for Europeans and Americans, sentenced under Act XXIV. of 1855, was completed. The system of Jail discipline was assimilated to that of the modern English prisons. The dietary was based on that in use at Pentonville. The total number of prisoners in all the Jails was on

1st May 1861	...	...	...	...	6,424
30th April 1862	...	...	...	...	7,253

The mortality among the prisoners was unusually high, being very nearly 10 per cent. on the average of all the Jails, especially at Vizagapatam. Cholera prevailed at a great number of Jails. The type of the disease was most formidable at Vizagapatam, Calicut, Tellicherry, and Cannanore. The prison attached to the Sudder Ameen's Court at Itchapore was abolished; it proved in former years unhealthy, and was not under sufficient control. The total expense of prisons for the year was Rs. 2,98,144. The monthly cost of guarding was Rs. 8,022.

REVENUE.—As compared with 1860-61, the season was generally more favorable; but as a general rule was not a good one.

Emigration.—The number of Emigrants from the Southern Districts to Ceylon was increased to some extent by the deficient harvest, and dearth of food.

		1860-61.	1861-62.
Tanjore ...	...	... 1,699	708
Madura ...	...	... 26,883	32,326
Tinnevelly ...	...	... 15,253	12,691

General Revenue.—The total revenue steadily increased between 1857-58, and the past year 1861-62, from £4,813,371 to £6,083,883, the increase in last year over that which preceded it being £121,218.

Items	1857-58.	1858-59.	1859-60.	1860-61.	1861-62.	Percentage.
Land Revenue ...	Rupees. 3,61,81,771	Rupees. 4,15,20,294	Rupees. 4,08,14,800	Rupees. 4,03,99,389	Rupees. 4,14,18,879	Rupees. 68.0
<i>Sundry Sources.</i>						
Abkarry or tax on spirituous li- quors ...	27,37,858	28,33,591	29,28,240	30,72,921	33,28,807	5.5
Salt ...	56,92,310	60,24,313	64,58,763	70,60,770	86,01,418	14.2
Sea Customs ...	12,80,291	13,91,409	23,55,639	27,01,861	21,35,384	3.5
Moturpha or tax on profes- sions, &c. ...	10,51,534	11,03,253	10,94,734	10,08,339	8,11,514	6
Stamp Revenue ...	7,50,737	8,07,179	8,58,008	13,95,972	29,54,576	4.9
Frontier Customs ...	1,93,806	1,96,062	2,39,637	2,87,419	2,71,484	4
Income Tax ...	.....	.....	.....	5,42,914	16,93,791	2.7
Total Sundry Sources ...	1,17,06,536	1,23,55,807	1,39,35,021	1,60,70,196	1,92,96,974	31.8
Extra Revenue including inter- est account ...	2,45,410	2,20,150	2,87,993	1,57,069	1,22,985	2
Grand Total	4,81,33,717	5,40,96,251	5,50,37,814	5,66,26,654	6,08,38,838	100
£ Sterling	4,813,371	5,409,625	5,503,781	5,662,665	6,083,893	.....

Area under Cultivation.—The net extension in the area of cultivation amounted to nearly half a million of acres exclusive of the Districts of Canara and Malabar, and represents an assessment of about eight lacs of Rupees or £80,000. The increase occurred in every District except Coimbatore, in which by reason of the extremely unfavorable character of the season, a considerable extent of land (Acres 1,23,720) was thrown up, and the gross increase largely reduced. The large increase in Tinnevely (Rupees 2,59,472) is gratifying as resulting from the extensive relief given to the Ryots in the abandonment of the Uluengu system.

Land.—There was a net increase of Rupees 10,19,490 or £101,949, in the revenue from land, resulting from a gross increase of Rupees 21,08,139, or £210,813 against a gross decrease of Rupees 10,88,649 or £108,864. The amount of Land Revenue realized by coercive process was Rupees 12,849.

Abkaree.—This shews an increase of Rupees 2,55,886 resulting from the sale of the leases of some of the Districts which fell in during the year for higher rents than were obtained on the last occasion.

Revenue in 1860-61 was	...	Rs. 30,72,921
Revenue in 1861-62 was	...	„ 33,28,807

Salt.—Under this item we have

1860-61	...	Rs. 70,60,770
1861-62	...	„ 86,01,418

In April 1861, the Government selling price was raised from Rupees 1-2-0 to Rupees 1-6-0 per Indian maund. On the 24th June 1861, this price was raised to Rupee 1-8-0. The facilities afforded by the railroad for the carriage of salt into the interior had a marked effect on the Madras sales, which show an increase of Rupees 5,07,480. The quantity so conveyed was Indian maunds 6,34,886 or Tons 23,322, being an increase of Indian maunds 98,963 or Tons 3,635 over the preceding year.

Sea Customs.—There was a decrease of Rs. 5,66,477.

1861-62.			
Total value of imports	...	Rs. 5,67,80,038	
Ditto ditto exports	..	„ 5,82,50,736	
Ditto ditto re-exports	...	„ 11,20,099	
Ditto ditto Gross duty	...	„ 20,75,279	
Total Foreign Import trade 1860-61	...	„ 3,16,56,812	
Ditto ditto 1861-62	..	„ 3,44,93,138	
Total Cotton Export trade 1860-61	...	„ 1,12,91,211	
Ditto ditto 1861-62	...	„ 1,70,40,215	

The new Tariff of values for duty was introduced during the year. Several of the items need to be altered to suit them to Madras.

Total Sundry Charges.

Items.	1860-61.	1861-62.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Abkarry	30,72,921	33,28,807	2,55,886	.....
Salt	70,60,770	86,01,418	15,40,648	.....
Sea-Customs	27,01,861	21,35,384	.....	5,66,477
Moturpha	10,08,339	3,11,514	.....	6,96,825
Stamps	13,95,972	29,54,576	15,58,604	.....
Frontier Duty	2,87,419	2,71,484	.....	15,935
Income Tax	5,42,914	16,93,791	11,50,877	.....
Total	1,60,70,196	1,92,96,974	45,06,015	12,79,237

Net Increase... 32,26,778

General Results.—

Item.	1860-61.	1861-62.
	Rupees.	Rupees.
Land Revenue	4,03,90,389	4,14,18,879
Sundry sources	1,60,70,196	1,92,96,974
Miscellaneous items	1,57,069	1,22,985
Total Rs.	5,66,26,654	6,08,38,838
or £	5,662,665	6,083,883

District Presses.—

Total estimated value of work done	...	63,100
Ditto ditto Income	...	49,466
Ditto ditto Expenses	...	36,799

The Pearl Fishery lasted twenty-one days, and resulted in a net profit to Government of Rupees 1,10,619 or £11,062.

Municipal Institutions.—These have not extended since last year, and are confined to the Vizagapatam and Salem Districts.

Income Tax in the Presidency Town.—The inhabitants of Madras availed themselves largely of the provisions of Act XXI. of 1861, which freed them from the necessity of making any fresh

returns. The demand for the three quarters due at the close of the official year 1861-62 was Rs. 2,11,425, of which Rs. 98,310 were collected up to 30th April 1862, and Rs. 1,22,509 up to the 31st ultimo. The charge against Income Tax Revenue was Rs. 70,404, or 23½ per cent.

Revenue Survey and Settlement.—The new settlement brought into operation in South Arcot and the field measurements in the Godavery Districts were completed. The operations in Guntoor progressed, as also in Nellore and Kurnool, which latter locality will be first affected by the works of the Madras Irrigation and Canal Company. The preparation of the Settlement Registers in Trichinopoly commenced. The field operations in the Wynaad were wound up, and operations put in progress in Coimbatore. The Field work of 1861-62 was—

	Completed.		In Progress.	
	Number of Villages.	Area in square miles.	Number of Villages.	Area in square miles.
Demarcation,	2,327	6,922	246	1,910
Classification,	1,896	3,911	47	344
Survey,	1,702	4,448	...	...

The Expenditure in Settlement was Rs. 3,29,157

Ditto Survey „ 4,18,159

Total „ 7,47,316

Inam Commission.—

Total number of titles confirmed ... 1,11,602

Extent in acres ... 14,12,085

Value or estimated Assessment ... 15,88,285

The number of cases of personal and religious Inams decided by the Deputy Collectors was 1,02,558, besides 76,141 of Village Service Inams. The cost of the Commission was Rs. 1,75,000. The total additional revenue secured permanently to Government was Rupees 3,96,822. The Godavery

and Kistna Districts were completed in the preceding year, and the inquiry was closed in Bellary, Cuddapah, Kurnool, Nellore, Madras and South Arcot. The important measure of the enfranchisement of the Village Service Inams was carried through with success in the Ceded Districts and Kurnool. The object of the present settlement is to confer on Inamdars, in return for an equivalent annual quit-rent, a perfect right of freehold in their Inams with power to sell and transfer them at will, like other private property, placing them at the same time under the jurisdiction and process of the ordinary Courts of the country.

Conservancy of Forests.—The finest and most profitable of the Forests belonging to the Madras Presidency—that of North Canara—was made over to the Bombay Government. The net profit amounted to the large sum of four lakhs, twenty-eight thousand, six hundred and thirty-nine Rupees, with a stock of Timber worth two lakhs and sixty-nine thousand Rupees. The expenses of conservancy of the Wynad Forests were more than met by the receipts, and if the amalgamation of Hoonsoor and Wynad be systematically carried out a profit of 10,000 Rupees may be anticipated for 1862-63. Of the Mudumallai forests, the expenditure was Rupees 37,474, receipts 37,936. A favorable report is given of the Neilgherry Sholals and Wellington Firewood Plantations, but not of Cuddapah Forests and Nellore Teak Plantations. Success continued to attend the experiments made to introduce valuable varieties of the Quinine yielding plants on the Neilgherry Hills.

Public Works.—The expenditure provided for in the Budget was Rs. 50,72,235.

Total expenditure in 1861-62 was ...	Rs.	47,52,622
Ditto ditto in 1860-61 was ...	„	42,04,988

There was also a large outlay from local funds roughly estimated at Rs. 2,50,000.

		1861-62.
Total expenditure on new works ...	Rs.	25,24,066
Ditto ditto on repairs ...	„	23,31,757
Total ...	„	48,55,823

Ganjam.—The only new works of Irrigation requiring notice are the Boary reservoir and channels in Gumsur, and the construction of a regulating sluice and new head to the Julnoor channel. Under the head of Communications the following new works were completed :—

	Rs.
1. Improvements to road from Chicacole to Calingapatam, 16 miles in length ...	4,919
2. Trunk Road No. 6 from Caseeboogah to Dendagedda near Itchapoor, 28½ miles ...	30,346
3. Road from Mojagadah to Sunkeracole, 8 miles finished, 14 miles in progress ...	8,828
4. Clearing road traces in the Gumsur jungle, 22 miles in length ...	2,199
5. Do. in connection with proposed new road from Aska viâ Bulleapudra and Bellagoon-ta to Russelcondah, with branches to Kur-choly and Jugganathpersad ...	1,695

Vizagapatam.—Of Irrigation new works the principal were those in connection with the Gubbada River, and the Calavalapillay Pedda Gedda. Under the head of Communications, the following were the principal new works executed.

	Rs.
1. Improving road from Ankapillay on Trunk Road No. 6 to the Ferry landing place near Vizagapatam ...	5,363
2. Do. branch road between Vizagapatam and Vamlavalsa ...	3,370
3. Do. road from Kotur to the Harris Valley at Galipurvatum ...	728
4. Constructing road from Vizianagram to Jey-pore ...	4,564

Upper Godavery.—The actual expenditure for the works on the Upper Godavery amounted to Rupees 3,57,260 exclusive of advances. A connected line of land and river transit between the Coast and the Nagpore Districts, by means of tram roads round the Barriers, and steamers in the navigable reaches between them, was nearly completed.

Godavery.—The expenditure in this important District during the past year amounted to Rupees 5,01,436. The principal new works of Irrigation and Navigation combined, undertaken, were the high level canal to Ellore, from the Wyairoo on the one side, and the village of Perikeed in the Kistna District on the other. The next works in point of importance undertaken, were the completion of the main line of Irrigation and Navigation in the central Delta and the Anlapur canal.

Kistna.—The expenditure exclusive of local Funds, amounted to Rupees 2,92,435. The principal Irrigation works undertaken were—

	Rupees.
1. The high level Canal from Bezoarah to Perikood	7,471
2. Two Channels in the Eastern Delta, or Captain Ryves' Channels	33,385
3. The Masulipatam Canal	35,753
4. The main Channels for 4 miles from Seetangrum	12,288
5. The Nizampatam Canal	26,243

Nellore.—The amount expended on Public Works in this District during the past year was Rupees 2,21,506. The principal new work of Irrigation was the Pennár anicut, which, with the exception of the levelling of a few square yards of the apron at the northern end, was completed. Considerable improvement was effected in the bed of the river above the anicut, by the construction of two stone groynes at a cost of Rupees 3,652.

Cuddapah.—In this District the total expenditure amounted to Rupees 2,35,971. The principal new works of Irrigation were the restoration of the Chinna Orampaud, Mutialcherru and Anantarak tanks.

	Rupees.
1. Road from Cuddapah viâ Balpalli towards Madras	6,949
2. Road from Cuddapah to the Bellary frontier... ..	10,600
3. Road from Cuddapah viâ Budwail to the Nellore frontier	5,265
4. Trunk Road No. XI. from Cuddapah to Kullur	14,000

Bellary.—The expenditure in this District was Rupees 2,57,503. The principal new Irrigation work in progress was the improvements and extension of the Sirgoopah channel from the Toongabudra river.

Kurnool.—The expenditure in this District during the year 1860-61 amounted to Rupees 85,438.

		New works.	Repairs.
		Rs.	Rs.
Irrigation ... ..	...	...	17,221
Communications ... ..	...	26,957	26,723
Buildings ... ..	...	12,960	1,577
Total ... ..	...	39,917	45,521

The greatest expenditure took place on the Nundy Canama ghât, on which Rupees 8,170 were laid out in completing the western face.

Madras.—The expenditure on Public Works in this District was Rupees 2,72,119, viz. :—

				<i>New works.</i>	<i>Repairs.</i>
				Rs.	Rs.
Irrigation	...	...	...	24,629	37,503
Communications	...	...	...	7,399	1,25,922
Buildings	...	...	...	57,156	19,510
Total				89,184	1,82,935

Under the head of Irrigation the largest outlay was Rupees 19,802 on the channels connected with the Palar Anicut project. The Coast Canal from Sadras to the Palar river, and Artillery Depôt at St. Thomas' Mount progressed.

Pulicat.—The expenditure was

				Rs.
Military Buildings	...	...	...	12,456
Civil ditto	...	...	...	6,610

North Arcot.—The expenditure was

				<i>New works.</i>	<i>Repairs.</i>
				Rs.	Rs.
Irrigation	...	...	...	50,532	40,630
Communications	...	...	...	50,189	45,018
Buildings	...	...	...	2,091	6,982
Total				1,02,812	92,630

Of communications, the following new works may be noticed :—

	Rs.
1. Road from Arnee to Conjevaram	9,998
2. Do. Tiruttany to Arcot Cuppum	4,315
3. Do. Ramakistnapuram to Tiruttany	5,688
4. Do. from the Puttur station to Nagalapuram	4,000
5. Do. from Vellore to Arnee	7,004

Under the head of Repairs to Irrigation works, Rupees 40,630 were expended on 160 tanks and channels.

South Arcot.—The expenditure in this District was Rs. 1,83,989, of which the following is a summary :—

				<i>New works.</i>	<i>Repairs.</i>
				Rs.	Rs.
Irrigation	...	...	...	37,239	56,697
Communications	...	...	...	30,586	56,305
Buildings	...	...	...	559	2,603
Total				68,384	1,15,605

The expenditure under the head of Repairs to Irrigation works amounted to Rupees 56,697, inclusive of the cost of "minor new works."

In Tanjore, Trichinopoly, Madura, Tinnevelly and Coimbatore. 453

Tanjore.—The expenditure was

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Irrigation	...	...	4,562	1,14,286
Communications	...	...	13,442	45,647
Buildings	...	...	2,096	15,935
Total			20,100	1,75,868

Trichinopoly.—The total expenditure during the year amounted to Rupees 2,14,358, viz. :—

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Irrigation	...	...	27,142	62,853
Communications	...	...	76,876	34,684
Buildings	...	...	6,374	6,429
Total			1,10,392	1,03,966

Madura.—The outlay in this District was Rupees 1,44,484, under the following heads :—

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Irrigation	...	...	3,602	32,501
Communications	...	...	76,640	12,960
Canals	...	...	10,262	1,924
Buildings	...	...	3,202	3,393
Total			93,706	50,778

Tinnevelly.—The actual outlay was as follows :—

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Irrigation	...	...	5,473	49,373
Communications	...	...	44,776	43,190
Buildings	...	...	4,020	2,604
Total			54,269	95,167

Coimbatore.—The expenditure in this District was

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Irrigation	...	...	1,288	36,461
Communications	...	...	17,470	72,044
Buildings	...	...	28,169	2,486
Total			46,927	1,10,991

Salem.—In this District the expenditure upon Public Works was Rupees 1,58,850, as follows :—

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Irrigation	...	...	2,159	28,431
Communications	...	...	18,033	77,650
Buildings	...	...	30,771	1,806
Total			50,963	1,07,887

North Canara.—The principal event of the year was the transfer of the District from the Madras to the Bombay Presidency, carried out as regards the Public Works Department on the 1st February 1862, up to which date the expenditure amounted to Rupees 1,34,540, viz. :—

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Communications	...	...	52,462	60,520
Ports and Harbours	...	...	15,105	...
Buildings	...	...	1,650	4,803
Total			69,217	65,323

South Canara.—The total amount of outlay was Rupees 51,353, classified in the following manner :—

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Communications	...	...	9,512	28,898
Buildings	...	...	7,750	5,193
Total			17,262	34,091

Malabar.—The outlay, amounting to Rupees 1,75,209, exclusive of Rupees 24,978 from local Funds, has, however, exceeded that of the preceding three years, and many important works have been carried out under the following heads :—

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Irrigation	...	...	...	6,651
Communications	...	...	1,11,038	21,729
Buildings	...	...	16,202	19,589
Total			1,27,240	47,969

The largest expenditure on new works, as is always the case in this District, was on roads and bridges.

Presidency.—The expenditure during 1861-62 was Rupees 3,21,130, viz. :—

			<i>New works.</i>	<i>Repairs.</i>
			Rs.	Rs.
Irrigation	...	...	332	874
Communications	...	...	66,523	13,728
Buildings	...	...	1,77,262	62,411
Total			2,44,117	77,013

The particulars of outlay under the head of Communications are

	Rs.
1. Formation of new road east of the Madras Club House	48,000
2. Do. along the east side of the Canal north of the General Hospital	4,044
3. Improvements to the eastern portion of Royapooram	5,000

Bangalore.—The actual expenditure amounts to Rupees 1,37,893, of which by far the greater amount was on account of Military buildings :—

		New works.	Repairs.
		Rs.	Rs.
Communications	...	349	5,320
Buildings	...	1,21,864	7,860
Total	...	1,24,713	13,180

Wellington.—The expenditure during the year was Rs. 43,590, viz. :—

		New works.	Repairs.
		Rs.	Rs.
Communications	...	...	6,084
Buildings	...	20,574	16,932
Total	...	20,574	23,016

Madras Irrigation and Canal Company.—Government on the 31st May 1861 sanctioned estimates for Rs. 4,60,000 for the first 17 miles of the Main Canal, from the village of Soonkasala, on the Tumbuddra, to the town of Kurnool. The numbers of laborers employed varied from 14 to 20,000 per month. The expenditure was Rs. 7,58,949. The total expenditure in India from the commencement up to 30th April 1862, amounts to Rs. 14,41,633. The quantity of land made over by the Revenue authorities for occupation by the works was 1,969 acres, of which 1,004 belonged to Government, and 965 to private individuals. The Company ruled that the collection of the assessment for their water-rate is to be left to the Government, that their officers are to be the judges of the nature and extent of remissions, and that a reasonable charge for collection is to be placed to the debit of the Company.

Railroads.—During the official year 1861-62, the Engineers of the Madras Railway were engaged in carrying on the construction of the South-west and North-west lines, and the Bangalore branch, and the Engineers of the Great Southern of India Railway proceeded with the construction of the line be-

tween Negapatam and Trichinopoly. The total length of the open portion of the Madras Railway on the 30th April was 362 miles; of which $335\frac{1}{4}$ miles belonged to the South-west line, and $26\frac{3}{4}$ miles to the North-west line. The total expenditure sanctioned by Government from the commencement in March 1853 up to 31st December 1861, amounts to Rs. 3,49,94,166-1-10. The Great Southern of India Railway line was opened in Sections, as follows:—

From Negapatam to Trivallore	14 miles,	on the 15th July 1861.
Do. Trivallore to Tanjore	35	do. 2nd Dec. „
Do. Tanjore to Trichinopoly	30	do. 11th March „

The total expenditure sanctioned by Government, from the commencement of the works in October 1858 up to 31st December 1861, amounts to Rupees 28,85,336-4-11.

Marine —There are now eighteen ports under the Port Conservancy Act, which seems to work well and to give general satisfaction. The line of Mail Steamers between Madras, the Northern ports and Rangoon, which was commenced in January 1861, was continued till March 1862. The communication with Burmah will be kept up by an occasional direct trip of a Government Steamer, and *vid* Calcutta by either the P. and O. or the Coast Steamers abovementioned, and the Burmah Steamers from Bengal, of which there will now be three every month, one of which will proceed on to the Straits.

The actual disbursements were—

	Rs.
Marine Superintendent's Office	24,912
Master Attendant's Department	49 805
Board of Examiners in Navigation and Seamanship	600
Shipping Master's Establishment	3,960
Marine Establishment at Out-ports	26,708
Light Houses	17,080
Miscellaneous	1,78,164
Total Rupees ...	3,01,229

Ganjam was brought under the operation of Act XXII. of 1855. A steam Dredge was at work under the orders of the Public Works Department, clearing out the river and bar at

Cocanada; but the shoal from Hope Island still progressed northwards, although not with such rapid strides as in previous years. At Madras the Pier, so far as the Contractor's work is concerned, was nearly completed, but its connection with the Custom House had yet to be commenced. The Pier was opened to passengers on the 1st December 1861, and from the 1st of January a toll of 2 Annas was levied on all persons embarking from or landing at the Pier. Ships in the Madras Roads will henceforth pay a fee of two Annas per ton on all water supplied.

FINANCIAL.—*The Military Finance Department* now consists of a Controller, Military Accountant, Pay Examiner, Ordnance Examiner, Commissariat Examiner, Medical Examiner, Compiler Pay Department, and Eight Divisional Paymasters. Changes were likewise made in the organization and constitution of the Army during the year, the chief of which may be considered the institution of the newly organized Staff Corps, which absorbed from the old Indian Army—7 Lieutenant-Colonels, 90 Majors, 163 Captains, and 81 Lieutenants, at an *additional* cost to the State, as far as yet ascertained, of Rupees 2,28,960 per annum.

Mint and Currency—The denominations, numbers, and value of the respective pieces were:—

Of Single Rupees	...	39,77,440	39,77,440
Of Half do	...	2,65,490	1,32,745
Of Quarter do	...	4,94,024	1,23,506
Of Double Annas	...	13,23,023	1,65,377
Total	...	60,59,977	43,99,068

The coinage of Copper both from slips and re-melted scissel was steadily maintained; 419 tons of slips and 230 tons of scissel having been worked up. The total outturn of coin both of Silver and Copper was 7,70,09,737 pieces, in value 54,76,040 Rupees. The receipts of the Mint amounted to Rupees 6,74,784, and the expenses, including the Assay Office and other charges, with the loss on the sale of Copper scissel, were Rupees 2,49,609. There was therefore a clear profit of Rupees 4,25,175. In the Machinery Department there was one 30 Horse-Power Engine received from England and set up for laminating Silver; two others purchased and set up for laminating Copper. A supply of 1,50,000 Notes, representing a value of 164½ lacs of Rupees, was received from England. Of the Cash received in exchange, twenty-five lacs were deposited in the old Treasury strong-room within the Fort, and five lacs in the vaults of the Mint. The actual receipts from Income Tax amounted to Rs. 31,18,830 while in 1860-61, they only reached Rs. 15,25,650.

STATEMENT.

INCOME.	Total Actual amount for 1861-62.	Percentage, i. e., the proportion yielded by each separate source of Revenue.	CHARGE.	Total Actual amount for 1861-62.	Percentage, i. e., pro- portion of Income allotted to each branch of charge.
Land Revenue	... 4,08,19,670	58½	Allowances, Refunds and Drawback	2,51,240	4
			<i>Revenue Charges.</i>		
Salt Revenue	... 86,52,620	12½	Land Revenue, ...	47,09,000	6½
			Assessed Taxes ...	1,21,980	1
			Customs ...	1,59,740	2
			Salt ...	10,89,080	15
			Stamps ...	1,14,720	1
Tribute...	... 34,46,430	5	Superannuations ...	1,53,430	2
			Miscellaneous ...	78,360	0
			Contingencies, Special and Temporary ...	570	0
Abkarry	... 33,33,930	4¾	A. Total Rupees 64,26,830 or 9¼ per cent.		
			Allowances and Assignments under Treasuries and Engagements ...	30,97,400	4½
Land and Sea Customs...	... 23,79,140	3½	B. Total Rupees 33,58,480 or 5 per cent.	2,61,080	4

Moturpha and Duty on Arts, Trades, &c	3,19,500	Military ...	...	2,98,00,020	43
		Public Works ...	...	70,31,710	10
		<i>General Charges</i>			
Income Tax ...	24,91,920	Salaries and Expenses of Public Departments	...	25,11,210	3½
		Education, Science, and Art	...	5,42,860	3½
Stamps ...	31,18,830	Political Agencies and other Foreign Services	...	89,510	0
		Superannuation and Retired allowances and Gratuities for Charitable and other purposes	...	16,15,000	2½
Sayer or Extra Revenue	7,36,330	Miscellaneous	...	9,37,330	1½
		Civil Contingencies, Special and Temporary	...	1,97,860	½
Miscellaneous, i. e. Military, Mint, Public Works, Law and Justice, Marine, Police and Interest—Rupees 3,67,400 estimated	41,84,450	C. Total Rs. 58,03,770 or 8½ per cent. 21½ lacs of which have been estimated. Judicial and Magisterial Charges at the Presidency and in the Provinces	...	31,17,780	4½
		Police	...	33,44,440	4½
		Marine	...	2,88,190	½
		Interest, 5 lacs estimated	...	6,62,380	1
Rupees	6,95,15,820	Surplus	...	6,01,44,840	86
			Rupees	93,70,980	13
				6,95,15,820	100

POLITICAL.—*Travancore and Cochin.*—The Administration Reports are for the Malabar year 1036 (1860-61) which closed on the 14th August 1861. Mr. F. Maltby, the Resident, was compelled by ill-health to resign. He bears witness in his report to the satisfactory administration of Travancore and Cochin. An excellent Dewan was appointed in Cochin. In Travancore there was an amalgamation of the Sessions and Zillah Courts; the Penal Code of British India and the Code of Civil Procedure were introduced, and the latter was about to be declared law in the Cochin State. A Commission, composed of the Dewan and other persons approved by the Resident, will perform duties very similar to those performed by the Judicial Committee of Her Majesty's Privy Council—the final decisions resting with the Rajah and being issued in his name. The Tobacco monopoly was abolished in Cochin. The public works in both States progressed satisfactorily. The Shoranore Bridge, which is to connect the Madras Railway with the Trichoor road, advanced rapidly. In Travancore the Victoria Canal progressed. The financial condition of these territories was as follows:—

Travancore.

			Rupees.
Total Revenue 1859-60	...	...	51,41,918
1860-61	...	...	41,93,778
Disbursements 1860-61	...	...	46,41,242

Cochin.

			Rupees.
Total Revenue 1859-60	...	...	9,26,945
1860-61	...	...	10,40,207
Disbursements 1860-61	...	...	8,81,167

Tanjore.—The Commission appointed for the investigation and settlement of the claims against the late Rajah of Tanjore awarded Rupees 1,86,332. It was resolved to make over all the landed property of the late Rajah, not being a portion of the hereditary Raj, or the value, to the family of the Rajah, in accordance with the provisions of the Hindu Law. Of the personal property the sum which was in the Treasury at the time of the Rajah's death, is made available for the payment of the Rajah's debts. The remaining personal property, not State property, is to be made over to the Rajah's family. The payment of the remainder of the Rajah's debts, and the pensions to the various members of his family and dependants, allotted by the Madras Government, were also sanctioned by the Government of India. It was also decided that a sum of Rs. 35,000 which had been advanced for the marriage of the Rajah's daughter, should not be reclaimed.

Carnatic.—The Secretary of State finally rejected Prince Azeem Jah Bahadoor's claim to the Musnud. Notice was given on the 15th January 1862, that no claims against the Estate of the late Nabob of the Carnatic would be received after the 15th March 1862. Prior to this date 2,310 petitions were received.

Poodoocottah.—The receipts amounted to Rs. 7,47,868, and the disbursements for the year to Rs. 5,34,195, leaving a surplus of Rs. 2,13,673. The Rajah again objected to the substitution of the procedure, laid down in Act VIII. of 1859, for the antiquated and cumbrous forms now in use. The working of the Civil Courts exhibited little or no improvement.

MILITARY.—The event of the year was the amalgamation of Her Majesty's British and Indian Forces, the order for which was republished by the Madras Government on 30th April 1861. Of 4,716 Europeans in the service, 4,112 volunteered for General Service. In connection with the amalgamation and the formation of the "Staff Corps," Her Majesty's Government granted to Officers of the Indian Armies the privilege of transfer to Line Regiments on the occurrence of vacancies occasioned by Officers of those Regiments joining the Staff Corps. The future strength of the European Force for the Madras Presidency was fixed at

- 29 Batteries of Artillery.
- 2 Regiments of Cavalry, and
- 10 Regiments of Infantry.

The Native Infantry was reduced from 48,543 combatants to 39,216 on the 1st May 1861, leaving only 2,140 in excess of the Establishment. Annuities varying from £550 to £150 in the grades of Lieutenant Colonel and Major, and £120 to Captains of 25 years' service induced

	<i>Cavalry.</i>		<i>Infantry.</i>	
Lieutenant Colonels	...	7	...	41
Majors	6	...	25
Captains	3	...	13

to retire. Consequent on the withdrawal from Pegu of a considerable portion of the Madras Troops serving in that Division, and the decrease in the Native Army of the Madras Presidency, extensive reductions were effected in the expenditure of the Ordnance, Commissariat, Public Cattle, and other Establishments. Then followed the abolition of Brigade Majorships at

Rangoon and Tonghoo, and the abolition of the office of Deputy Quarter Master General, Her Majesty's British Troops. The sale of surplus horses effected a large saving of expenditure. Gas lights were introduced into Fort Saint George.

EDUCATIONAL.—The number of Schools was 733, with an attendance of 29,194 pupils; during last year the numbers were 575 and 24,240.

	Pupils.	
Number of Schools in which the standard of instruction is higher than that in a Taluq School was	65	9,182
Number of Schools of the grade of Taluq Schools	128	5,364
Number of Village Schools	536	14,110
Number of special or professional Institutions	4	538
Of the 29,194 pupils entered in the foregoing tables,		
306	were	Europeans.
1,166	„	East Indians.
5,827	„	Native Christians.
15,907	„	Hindoos.
923	„	Mahomedans.
Of the entire number, 4,132		
58	„	girls, of whom
151	„	Europeans.
2,917	„	East Indians.
973	„	Native Christians.
33	„	Hindoos.
	„	Mahomedans.

Madras University.—The University held three examinations in February last, one for Matriculation, one for the Degree of Bachelor of Arts, and one for the Degree of Bachelor of Laws. Only six candidates offered themselves for the B. A. examination, all students of the Presidency College. Of these, only five candidates passed, all in the second class. Five candidates were examined for the Degree of Bachelor of Laws, of whom three passed, two of them private students, and the third a student of the Presidency College; another student of the Presidency College, Law Class, who had previously satisfied the requirements of the B. L. examination, was admitted to the Degree on passing the Matriculation examination in February last.

The Presidency College has been hitherto, and still is, a Collegiate school, rather than a College. The results of the annual examination of the students in their English studies were generally

favorable. In the Law Class two courses of lectures were delivered, one on Hindu and Mahomedan Law, and the other on Equity and Procedure. The students failed generally in Equity, but in the other subjects the answering was good.

Government Normal School.—Its progress was not quite satisfactory. The number of students was seventy-five, including thirteen European Military students, who were prepared for the situation of Army Schoolmasters. The Normal School at Vellore was very efficiently conducted. The Head Master, a Native, is a passed student of the Madras Normal School. The Normal School at Mayaveram with 26 students was transferred to Trichinopoly. Two new Normal Schools were opened at Vizagapatam and Cannanore for the training of Teachers for the Telugu Districts and the Western Coast. The progress of the Madrasa-iazam was highly satisfactory. It contained at the close of the year 291 pupils.

Provincial and Zillah Schools. —

Names of Schools.				No. of pupils on the roll on the 30th April 1862.
Bellary	...	...	...	250
Calicut	...	...	...	266
Combaconum	...	...	..	225
Chittoor	...	...	...	227
Rajahmundry	...	...	..	138
Berhampore	...	...	...	99
Cuddapah	...	..	..	84
Kurnool	...	...	..	129
Cuddalore	...	...	..	197
Salem	...	...	..	185
Madura	...	...	...	235
Total				2,035

Anglo-Vernacular Schools.—

Names of Schools.				Number of pupils on the 30th April 1862.
Chicacole	...	...	...	72
Ellore	...	...	...	55
Adoni	...	...	...	37
Anantipur	...	...	...	67
Pennacondah	...	...	...	49
Wallajapetta	..	...	...	147
Mayaveram	...	...	...	70
Chowghaut	...	...	...	61
Total				558

Taluk Schools.—

Taluk Schools				Number of pupils on the 30th April 1862.
In Ganjam	...	...	...
„ Vizagapatam	...	...	...	4 110
„ Godavery	...	...	...	6 220
„ Kistna	...	...	...	8 127
„ Madras	...	...	...	2 47
„ North Arcot	...	...	...	6 387
„ Salem	...	...	...	3 294
„ South Arcot	...	...	...	4 206
„ Tanjore	...	...	...	8 369
„ Coimbatore	...	...	...	6 241
„ Madura	...	...	...	7 317
„ Malabar	...	...	...	4 220
„ Canara	...	...	...	2 91
Total				4 104
				64 3,033

Hill Schools in Ganjam.—The Hill Schools in Goodinsur and Chinna Kimedly continued to improve; there were 572 scholars in attendance against 521 in 1861. The amount expended in *grants-in-aid* during 1861-62 was Rupees 40,795, of which the sum of Rupees 34,310 was given in aid of the salaries of teachers. The *Civil Engineering College* continued to comprise only a second or lower Department, intended to educate candidates for subordinate appointments on the Public Works.

19 Students obtained Certificates as Assistant Overseers.

5 do. as Sub-Overseers 1st Class.

2 do. as do. 2nd do.

5 do. as Draughtsmen and Estimate Makers.

4 do. as Surveyors.

Medical College.—The Medical College contained at the close of the year, eleven Students in the Senior Department, which is intended for the instruction of Candidates for a Medical Degree, or for the appointment of Civil Sub-Assistant Surgeon; nineteen in the second, in which provision is made for the education of Candidates for the appointment of Assistant Apothecary; and eighty-seven in the third Department, in which Candidates are prepared for Hospital Assistantships.

School of Arts.—The Committee appointed to examine into its working reported that the School of Arts has effected great improvement, and may be expected to produce still greater good as its operations take decided hold on the native community.

Outcast and Lawrence Asylum.—The Government grant was raised to Rs. 4,000 per mensem, which will suffice for the education and maintenance of 150 boys and 80 girls. The army schools were again put in connection with the Department of Public Instruction. The *expenditure* of the Department from the Public Treasury was about Rupees 5,44,672, distributed as follows :—

Salary and Office charges of the Director of Public Instruction	...	40,533
Salary, Office charges and Travelling allowances of the Inspectors and Deputy Inspectors...	80,372	
University of Madras	...	4,104
Government Colleges and Schools	...	2,80,000
Grants-in-aid	...	35,000
Grant to the Madras School Book Society	...	2,000
Preparation and purchase of School Books	...	35,143
Educational buildings, inclusive of building grants made to private Schools	...	66,150
Government Central Book Depot	...	1,370
Total	...	Rs. 5,44,672

* *Deduct.*

School Fees ...	...	...	6,148
Proceeds of sale of Books	...	...	28,573
			<hr/>
			34,721
			<hr/>
			5,09,951

Donations, amounting to Rupees 8,407, were contributed by the public, principally for the erection of School-houses.

Ecclesiastical.—For the first seven months of the year the Diocese of Madras was administered by the Commissary, the Reverend Thomas Dealtry, Acting Archdeacon. The Reverend Dr. Gell, consecrated Bishop by the Archbishop of Canterbury, was installed in Saint George's Cathedral on the 27th November 1861.

Medical.—The Public health was influenced by the prevalence of epidemic diseases, chiefly cholera, small-pox and fevers, in many districts. The rain-fall in many parts was below the average, and much scarcity and distress prevailed amongst the lower classes of inhabitants. In the Civil Dispensaries of the various Collectorates, of the In and Out Patients admitted, the total

Treated were	...	...	...	2,54,695
Died	...	...	...	1,689
Average daily sick	...	...	...	3,803
				<hr/>
				2,60,187

The health of prisoners in this Presidency remained still very unsatisfactory, and the mortality during the year was higher than usual. Most of the Madras jails were overcrowded. The jail at Vizagapatam, which was formerly tolerably free from cholera, was little better than a pest-house during the year. The total deaths of prisoners were 643.

Emigration.—The number of emigrants embarked was about the same as that of 1860-61, but a large proportion took service on the Railway now in course of construction in that Colony. The Dépôts were tolerably healthy. The emigrants who returned from the various Colonies amounted only to 510 from the Mauritius, and 32 from Natal. Emigration from Madras to the French Colonies had not commenced.

Presidency Municipality.—The total income was Rupees 4,82,973-10-8 as follows :—

			Rs.	As.	P.
Assessment, 1861	...	...	1,41,115	14	7
Wheel tax, 1861	...	...	39,931	4	0
Do. 1860, (4th Quarter)	...	...	13,899	8	0
Warrant fees	...	...	1,068	2	11

License fees	...	...	744	0	0
Fines	...	...	789	5	6
Interest	...	...	2,539	13	4
Slaughter-house fees	...	...	6,706	8	6
Rubbish sales	...	...	3,906	5	0
Proceeds of Ground and Buildings	...	...	13,314	14	7
Sale of Lamp Posts, &c.	...	...	465	12	7
Miscellaneous Receipts	...	...	445	2	3
Government contributions on account of roads and works	...	...	52,300	1	11

The repair of Roads aggregated Rupees 84,985-14-2, against Rupees 98,222-2-5 in the previous year. The amount expended in construction of the Trevelyan works last year, was Rupees 58,565-10-1, which, with the amount charged in the accounts for 1860, Rupees 21,122-6-1, brings the total cost up to Rupees 79,688-0-2. Scavenging cost Rs. 61,238. The number of *intra-mural* Burial Grounds that were closed was fifteen, and of *extra-mural* twenty-three.

Observatory.—The new Transit Circle was at last mounted, and in regular use. The Meridian Circle will be employed first. The objects observed with the Equatorial by Lezebours were eleven of the minor Planets, distributed over about fifty nights; the Great Comet of 1861, in thirteen nights, between July 3rd and October 8th; Encke's Comet of short period; the Solar Eclipse of July 7th; the Transit of Mercury; and the Double Star α Centauri, which was measured with the Crystal Prism Micrometer of the Hartwell Observatory, lent Dr. Lee.

Government Museum.—The systematic arrangement of the Zoological and Geological Departments proceeded, and the arrangement of the Palaeontological collection commenced with the preparation of specimens. By desire of His Excellency Sir W. Denison, K. C. B., an exchange of specimens with the Sydney Museum was established. For the Library 299 volumes were purchased. The average monthly expenditure was Rs. 307-4-6½.

THE ADMINISTRATION OF THE PUNJAB.

1861-62.

JUDICIAL.—*Civil.*—There was an increase of 12 per cent. in the number of original suits instituted. The proportion of suits to population ranged from 1 to 107 in Derajat and 1 to 396 in Hissar. The increased litigation is most perceptible in parole debts, which multiplied by one-fourth, and in debts on unregistered bonds, which rose by a third. The complete statistics are seen in the following table :—

DIVISIONS.	Total number of suits on the file.	Number disposed of.	Remaining for decision.	Total value of suits disposed of.		Average cost of each suit.		Percentage of costs to value.	Average time occupied in each case.	Percentage of cases decided in favor of Plaintiff or Respondent.	Percentage of cases disposed of by Kazeenamah.	Percentage of non-suits and dismissals.	Percentage of work disposed of by Tahseeldars.	Miscellaneous cases disposed of.
				Rs.	Rs.	Rs.	Rs.							
Delhi, ...	4,775	4,627	148	4,64,551	100	8	8	8	20	5	14	4	28	6,183
Hissar, ...	2,167	2,105	48	1,35,876	64	6	6	9	18	14	15	7	40	2,217
Cis-Sutlej States, ...	10,155	9,905	250	6,68,679	68	4	4	6	14	17	14	5	31	6,883
Trans-Sutlej States, ...	13,706	13,147	559	6,94,170	45	3	3	8	25	16	15	3	48	8,981
Unrishtur, ...	15,675	15,193	388	7,23,515	48	4	4	8	20	18	16	9	38	17,170
Lahore, ...	14,702	14,236	383	8,00,703	56	4	4	7	24	12	16	10	38	6,263
Rawalpindia, ...	11,701	11,198	478	4,18,398	37	3	3	8	22	16	20	8	45	4,342
Derajat, ...	8,465	8,316	94	2,47,024	30	3	3	9	12	13	14	8	43	3,979
Mooltan, ...	10,365	10,256	109	4,81,876	34	4	4	11	13	13	17	4	51	3,799
Peshawar, ...	5,654	5,468	181	1,83,484	33	3	3	9	15	15	9	9	41	2,538
Total for 1861, ...	99,365	96,451	2,638	48,18,276	50	3 $\frac{1}{2}$	3 $\frac{1}{2}$	8	19	15	16	7	40	61,855
Total for 1860, ...	1,04,221	1,01,096	2,236	57,09,153	56 $\frac{1}{2}$	3 $\frac{1}{2}$	3 $\frac{1}{2}$	6	33	18	17	8	38	64,548

The question of adopting "cognovits" and special trials by "family councils" was under consideration. Judges of Small Cause Courts were appointed at Delhi, Simla, Umritsur, Lahore, and Peshawur. These courts were freely resorted to. The Jaghirdars invested with civil jurisdiction disposed of 2,085 suits, with an average of 13 days to each case. The Commissioners generally report favorably of the manner in which this class of officers used their powers. The necessity of registration was, to a certain extent, forced upon the people by the provisions of the Stamp Act; and 28,563 deeds were registered in 1861, to 12,440 in 1860.

Criminal.—The work was unusually heavy. 41,263 cases were brought to trial, the number in 1860 being 35,303, only 296 cases remained under trial at the end of the year. The average duration of trials, both with and without the police, was the same as in the preceding year, namely, 8 days with, and 7 days without, the police. Of 94,807 witnesses examined, 88,675 were discharged on the first day. The average duration of Sessions trials was reduced from 37 to 27 days. The Indian Penal Code having come into operation, a considerable difference was caused in the nature of punishments. The number of capital sentences amounted in 1861 to 45, or 19 in excess of 1860. Honorary native Magistrates in the large cities were found of great use.

The Police.—The following table exhibits the number of crimes committed in the Punjab and its Dependencies for the three past years :—

YEAR.	1st class of Atrocity.	2nd class of Atrocity.	3rd class of Atrocity.	4th class of Atrocity.	Total of heinous offences.	Minor offences.	Grand Total.
1859	265	792	20,273	2,362	23,692	23,226	46,918
1860	257	730	21,948	1,906	21,841	22,351	47,195
1861	253	721	28,470	2,190	31,631	22,460	54,094
Difference between 1860 & 1861	—4	—9	plus 6,522	plus 284	plus 6,793	plus 106	plus 6,899

These figures show an increase of 14·6 per cent. in the aggregate of crime for the year 1861. There was one crime to every 274 persons of the population, instead of to every 314 as in the year preceding. The increase is almost entirely in heinous offences,

there being one heinous crime to 470 persons instead of to 596 as in 1860. The new system of Police was introduced into the Cis-Indus territory only. Adultery decreased from 875 cases in 1859 to 675 in 1861. The following shews the comparative success of the police in the prosecution and punishment of crime under the two different systems in force:—

Per-centage of cases brought to trial of those reported.

	<i>Cis-Indus.</i>	<i>Trans-Indus.</i>
1860, ...	72·8	82·3
1861, ...	72·6	84·3

Per-centage of acquittals

	<i>Cis-Indus.</i>	<i>Trans-Indus.</i>
1860, ...	22·	28·8
1861, ...	26·9	22·5

The inference is in favour of the old police, who, in the Trans-Indus, brought to light a larger proportion of crimes, and also prosecuted a larger proportion to conviction. Such a result was to be anticipated, not merely because the old system operates to the disadvantage of accused persons, by uniting the police and judicial powers in the same person; but because the new police have not attained the experience which they will hereafter acquire. The force was thus distributed:—

Strength of Force.	Area in square miles, Cis-Indus.	Population.	Proportion to one Policeman.	
			Area.	Population.
13,551	76,012	1,32,71,223	1 Policeman 5·6 miles.	1 Policeman 979 people.

The actual expenditure under the head of police amounted to Rs. 33,65,220, during 1861-62. The number of European officers was 64 costing Rs. 3,85,800. The system of Border Police is described by the Commissioner of Dera Ismael Khan. The cordon of military posts along the border line, supplemented by local police, all, when on the exterior line, under the command of the military officer, may be looked upon as the general measure in force on the Bunnoo and Dera Ismael Khan border, for the repression of crime on the part of the border tribes. On the Bunnoo border, however, the Ahmedzai Waziri tribes located in Bunnoo are held answerable for the good conduct of their tribesmen, and this latter system prevails throughout the Dera Ghazee Khan district, and is attended, from

the peculiar patriarchal character of the chiefs, with signal success. Since 1859 the cost of the Police Establishments has been reduced from rupees 46,61,013 to rupees 29,16,757, being nearly 17½ lakhs per annum.

Jails.—The daily average number of prisoners during the year, increased from 10,065 to 11,185; the total expenditure on jails from £40,804 to £44,265. But the average cost of each prisoner decreased from Rs. 40-8-7 to Rs. 39-9-2. The increased number of prisoners is due to the increase of crime; the increased aggregate expenditure to the high price of food; the decreased average cost of prisoners to the abolition of several jails. The rate of mortality rose from 2·33 in 1860 to 8·64 in 1861. The following figures shew the rate of mortality since 1852 :—

1852	9·72	{ Year of great sickness.	1857	6·67	{ Year of Cholera.
1853	4·95		1858	4·83	
1854	6·21		1859	2·35	
1855	5·07		1860	2·33	
1856	10·10	Do. & Cholera.	1861	8·64	

Only 12 prisoners escaped out of 35,910, and of these eight were recaptured. Dr. Dallas introduced a system of jail monitors into the Lahore jail, which resulted in an increase of quiet and regularity.

REVENUE.—*Land* yielded £1,860,232, *Excise* £58,685; *Salt and Customs* £686,098; *Canals* £74,985; *Assessed Taxes* £93,107; *Stamps* 97,303; *Miscellaneous* £84,530 or a total of £2,954,940 being an increase of £99,944 above last year. The balances of land tax, amounting to 5½ lakhs on account of the famine, were remitted. By the help of this timely relief, and by the grant of loans for the replacement of agricultural stock, the population of the famine-stricken region recovered from the effects of the calamity in a greater degree than could have been hoped for. The rains of 1861 were abundant. The autumn crops were generally good. The yield of the Income-tax under the several schedules was :—

1 per cent.	2 per cent.	3 per cent.	Total.
Rs. 1,58,757	3,08,589	4,63,731	9,31,077

Of the total increase of nearly 10 lakhs Rs. 3,68,419 is due to land revenue, Rs. 6,56,607 to salt and customs, Rs. 37,276 to canal revenue, Rs. 3,22,119 to stamps, and Rs. 23,196 to miscellaneous items. On the other hand, there was a decrease of Rs. 29,433 on spirits and drugs, and Rs. 3,83,744 on assessed taxes—owing to the abandonment of the license tax.

EDUCATION.—The statistics are seen in the following table :—

DESCRIPTION OF SCHOOLS.	No. of schools.	No. of scholars on the rolls at close of 1861-62.	No. of scholars attending daily on an average during 1861-62.	Aggregate expenditure from all sources.	Chargable to imperial revenues.	Chargable to 1 per cent. education- als fund.	COST OF EDUCATING EACH PUPIL									
							Total cost.	Cost to Govern- ment.								
							1860-61.	1861-62.	1860	61.	1861-62					
(Superior) Zillah,	21	2,146	1,714	81,102	63,693	2,801	31	51	1,45	11	124	5	10	37	2	6
(Inferior) Zillah,	2	135	100	2,302	2,721	...	10	5	9	23	...	5	10	...	22	3
Tehsili, ...	119	6,765	5,452	59,136	1,278	54,977	61	7	10	6	11	9	2	9	...	3
Village, ...	1,756	38,849	31,016	1,87,174	3,195	1,81,300	4	10	3	4	7	2	1	...	...	1
Female, ...	52	1,312	1,168	3,170	...	3,170	2	2	...	2	11	6	...	...	...	...
Private (Superior), ...	10	1,729	1,485	26,780	19,180	...	22	15	3	24	12	...	10	...	11	11
Private (Inferior), ...	20	1,137	880	23,656	10,518	...	25	10	11	26	14	1	8	7	11	15
Normal, ...	8	405	377	36,920	14,957	21,880	85	3	6	97	14	10	26	1	1	39
General establishments and other charges, ...	...	...	...	81,064	60,216	20,848										
Total, ...	1,962	52,480	42,192	5,11,284	1,75,758	2,84,976										

* Of this rupees 73,864 on building Tehsili and Village school houses.

PUBLIC WORKS.—The actual expenditure was Rs. 53,03,964.

Canals.—Of the Baree Doab Canal the main channel and branches were nearly completed. The main channel upper, as far as the Vahn escape, was opened in January. Upwards of 200 miles of Rajbaha are now open, besides the old Huslee Canal, 10½ miles in length, now united to the Baree Doab Canal. The works near the head of the canal for protecting the canal from the floods of a large hill torrent, and carrying it off into a new channel, were completed. A sum of Rs. 10,00,961 was spent on the canal. The Indus Canals were largely appreciated. The Maharaja of Putiala bore the expense of a survey for an irrigation canal, to be drawn from the Sutlej near its issue from the lower hills. The total expenditure on Canals was Rs. 11,05,750. During the year, Dr. Cleghorn of Madras pursued a systematic examination of the principal timber *forests* of the Himalayan districts of the Punjab. The expenditure on the timber operations of the Pangee agency (Forests of the Chenab and its tributaries) was Rs. 1,08,793, and the receipts Rs. 1,31,823, giving a nett profit of Rs. 23,030. The agency was chiefly employed in supplying timber for the Punjab Railway works. The *Indus Tunnel* at Attock made satisfactory progress. Of the whole distance between the feet of the vertical shafts, 1,505 feet, a total length of 1,025 feet of gallery had been driven on the 1st May, leaving 480 feet to complete. The cost of the works executed from local funds was Rs. 9,82,411.

Railways.—The line from Umritsur to Lahore was formally opened on the 1st March 1862, and finally on 10th April. During the first ten days nearly 3,000 passengers were conveyed daily. The third class fare was fixed at the low rate of 4 annas (six pence) for 32 miles. The amount of passenger traffic between Lahore and Umritsur has always been great. The ekka traffic has now nearly left this road. The second class fare, on the other hand, appears to have been fixed too high at 2 Rs. Even wealthy and respectable natives prefer travelling third class at the present fares, and the proceeds of second class traffic are at present little more than 3 per cent. of the third class receipts. One circumstance worthy of special notice is the large number of females travelling daily by railway on this line. They are sometimes nearly as many as half of the whole number of passengers. They sit together in carriages separate from the men. In the first 25 days there were 12½ first-class; 200½ second class, and 46,992½ third class passengers, and the income was Rs. 11,837. The length of this line between the city stations is 206 miles, and, with the extension at the *Mooltan* end to *Sher Shah Ali Ghat* on the Chenab, the steamer wharf, 218

miles. The Railway Company was authorized to raise £2,500,000 for the construction of the line to Delhi. The Punjab Government strongly recommended a course nearly parallel to the present Trunk Road, *vid Umbala, Loodiana, and Julundhur*, crossing the Sutlej and Beas rivers at sites contiguous to the present bridges of boats. The sum of Rs. 41,00,547 has been spent on Punjab railways since their commencement.

Through the *Post-office* 555,139 covers were delivered against 506,650 in 1859-60. The sum of Rs. 4,03,439 per annum is allowed for a department of Inland navigation for the Punjab. Three steamers plied between Mithunkote and Mukhud. Mithunkote is about 540 miles from the sea, and about 357 miles from Mukhud. The rapids which formerly existed at Kalabagh have now disappeared. Mukhud is a trading town, and may be approached by native boats in the flood season. Between Mukhud and Attok the navigation is difficult for about four months of the year. There is now water carriage for English goods from Kurachee to within 12 miles of Peshawur. There were 2,442 boats on the Indus of 33,208 tons. The following articles show an increased export from the Punjab in maunds—Cotton, from 8,639 to 48,941; Indigo, 1,741 to 2,446; Sesamum seed, 4,536 to 69,390; Tobacco, 315 to 1,363; Hemp, 2,311 to 4,793; Ghee, 15,711 to 17,587; Oil, 3,823 to 8,147; Sheep's wool, 76,104 to 83,766; Horns, 3,700 to 20,400; and Hides, 43,568 to 47,760.

FINANCE.—The following is the financial result :—

Year.	Receipts.	Civil Disbursements.	Surplus over Civil Expenditure.
1860-61	3,29,27,053	1,91,78,188	1,37,48,865
1861-62	3,04,70,828	1,64,67,647	1,40,03,181
Difference	m. 24,56,225	m. 27,10,541	p. 2,54,316

If it be ruled that the whole military expenditure shall form a charge against the Punjab finances, the account will stand as follows :—

Receipts,	...	...	3,04,70,828
Disbursements—Civil,	1,58,11,227		
„ Military,	2,44,66,420		
			<u>4,02,77,647</u>
Deficit,			98,06,819

The Lieutenant Governor submitted to the Supreme Government proposals involving a reduction in the military expenditure, amounting to Rs. 51,65,000 ; besides a saving of Rs. 2,00,000 on account of buildings. If these reductions be sanctioned, the military expenditure will be brought down to Rs. 1,86,45,000, and it probably could not be further lowered without risk. The cost of the troops at Peshawur, Mooltan, and Rawulpindee, forming, together with the Punjab Irregular Force included, the army of the north-western frontier, amounts to Rs. 1,10,19,000. If the Punjab pay only its native garrison like other provinces the account would be

Revenues,	...	...	3,04,70,828
Expenditure—Civil,	1,58,11,227		
„ Military, including buildings,	82,82,420		
			<u>2,40,93,647</u>

Excess of revenue available for Imperial purposes, ... 63,77,181

POLITICAL.—*Herat*.—About the year 1845 the Wazir Yar Mahomed, Khan of Herat, brought the district of Gour under subjection, and transported many of the Taimunis to Herat. At the beginning of 1861-62 Abdul Ghafur Khan was chief of the Taimunis. The chief place is Tybarah. The strong fort of Furrah is situated on the road between Kandahar and Herat, and commands the frontier district of the Kabul territories, abutting on Herat and Gour. The Taimuni chief, instigated by private enmity, procured the murder of a kinsman of his own, resident in the Furrah district. The Governor, Mahomed Sharif Khan, a son of the Amir, resenting this outrage, obtained permission to punish its perpetrator on the ground that the chief was a feudatory of the Afghan Government, and had formerly been coerced by an Afghan force, under the command of Jalaludin Khan, son of the late Wazir Mahomed Akbar Khan. On hearing of the preparations being made, Sultan Ahmed Khan, the ruler of Herat, remonstrated. But Mahomed Sharif Khan then made a sudden night march, compelling Abdul Ghafur Khan to flight. At the beginning of March, Sultan Jan of Herat, assisting

Abdul Ghafur suddenly advanced to Subzawar, half way between Herat and Furrah. He was accompanied by Mir Afzul Khan, son of Poor-dil Khan, and Sirdar Ghulam Mohiudin Khan, son of Sirdar Kohan-dil Khan, who strongly urged him to push on to Kandahar. His force consisted of 8,000 regulars and three guns, together with a crowd of militia, which soon moved on Khillutgah, about $4\frac{1}{2}$ miles from Furrah, the place where former kings used to hold investitures. Sirdar Saifulla Khan, the youthful son of the Amir, held the citadel of Furrah with four companies of regular infantry, 200 jazailchis, 200 horse and four small guns, but the gates were in the hands of the Khans of Furrah. The Sirdar was obliged to surrender. The Ameer summoned his Chiefs and reached Gharisk on 9th June.

On the 16th of October 1861, died Sirdar Sultan Mahomed Khan at Kabul. He was long regarded by the Ameer as an enemy and kept at Lahore under surveillance by Runjeet Singh. On the British occupying Lahore, Sultan Mahomed was released by Sir Henry Lawrence; and he justified the Amir's bad opinion of him by giving up his liberator's brother, General George Lawrence, and Mrs. Lawrence, who had taken refuge with him at Kohat, when the Sikh troops mutinied at Peshawur. On this account, Sir John Lawrence declined to accede to the request of Ghulam Hyder Khan, the late heir apparent of Kabul, that he should be restored to the fiefs which he held under the Sikhs. He afterwards enjoyed a jaghir in Lughman, and resided in the Kabul territories until his death. He was averse to the English alliance. His brother, Pir Mahomed Khan, died a short time before him. In the first half of 1861 some hostilities occurred between Bukhara and Khokand; these have, it is reported, been terminated by a treaty.

The Wuzcerrees.—Last year the Mahsud Wuzcerrees agreed to the terms offered to them. On 17th November 1861, a deputation from the three sections waited on the Commissioner at Dera Ismail Khan, with the object of ratifying the treaty previously made. The demonstration was believed to be sincere; and they have since behaved well. Colonel Taylor, however, took the opportunity of pointing out that the Shingis and Malikshais of the Buhlolzai section are hereditary thieves, exposed to constant temptation from the Povindah camels feeding immediately under their hills. He advocates their settlement on waste lands, but there is a difficulty in finding any with the advantage of irrigation.

On the 1st November 1861 the Maharajah of Jummoo and Cashmere was invested with the insignia of the Order of the Star of India.

MILITARY.—The following force in the Punjab is under the

Commander-in-Chief. There are 16,000 Europeans with 90 field guns and 13,500 natives. Compared with 1857 the Force stands thus :—

			1857.	1862.	Cost approx- imate, 1857.	Cost 1862.
Europeans, ...	{ Men, ...	12,650	16,000			
	{ Guns, ...	70	90			
					2,36,06,000	2,08,10,000
Natives, ...	{ Men, ...	41,500	13,500			
	{ Guns, ...	36	.. ...		

Excluding the 3rd Seikhs employed in Oudh, the Punjab Irregular Force is as follows :—

				Strength.	Cost per annum.	Cost per man.
Artillery,				575 men	2,72,673	476·1
Cavalry,				2,815 „	11,52,987	409·6
Infantry,				7,893 „	15,22,544	192·8
Total,				11,283 „	29,80,083	264·1

The army in occupation of the Punjab is composed of 3 Divisions, a Brigade at Delhi, and the Punjab Irregular Force. The whole strength and cost are :—

		STRENGTH.		Cost.
		Euro- peans.	Natives.	
Under His Ex- cellency the Com- mander-in-Chief.	Delhi Brigade, ...	1,000	900	13,00,000
	Sirhind Division,	4,900	3,100	59,70,000
	Lahore do., ...	5,300	3,800	69,20,000
	Peshawur do., ...	4,800	5,700	66,20,000
Under Govt. of India.	{ Punjab Irregu- lar Force, ...	.....	11,200	30,00,000
Total,		16,000	24,700	2,38,10,000

The Commander-in-Chief visited the frontier and inspected the Irregular force, with the condition of which he expressed high satisfaction. The result of the visitation of Cholera was that, in the Meean Meer garrison, out of a total strength of 2,150 European soldiers, 758, or 35 per cent. were attacked :—and 482, or more than 22 per cent. died—exclusive of 45 women and children who also fell victims to the disease. The Volunteer Rifle Corps at Lahore and Simla held parades and received musketry instruction.

Agricultural.—The rain-fall varied, the average of the Simla district being reported at 198 inches; that of Gujrat at 54; that of Delhi 24; and that of Mooltan at 4½. That the value of cultivated land is increasing is shewn by the return of absentees, and the tendency of owners to oust their tenants; also by the fact that the average price of land voluntarily sold exceeded seven years' purchase. Five Chiefs in Dera Ghazee Khan offered to execute canals. The rise in the price of cotton led to a considerable increase of cultivation. At Karachi the value of cotton exported rose from Rs. 85,690 in 1861, to Rs. 11,91,974 in 1862, but it is not exactly known to what amount the Punjab has contributed. The cultivation of flax was retarded by some of the European seed imported having failed. Silk of fair quality was pro-

duced both in the valley of Kangra and in the neighbourhood of Umritsur, chiefly through the exertions of Mr. H. Cope. The indigo of Sind and the Punjab suddenly came into favour. The Karachi papers state that the quantity exported in one year rose from Rupees 3,60,859 to Rupees 14,03,644.

Surveys.—The expenditure was Rs. 33,910 or Rs. 20-9-6 per square mile. During the field season of 1861, the Kashmir series party of the Great Trigonometrical Survey, under Captain Montgomerie, was employed in Khagan, Little Thibet, and Ladakh. The triangulation on the west was extended from the northern end of the Kashmir valley across the Kishengunga river, and over Khagan by means of stations on the southern and northern snowy ridges of that valley. The work was carried on in a very elevated country, generally over 14,000 feet, and sometimes attaining from 26,000 to 28,000 feet of elevation, barren and desolate in the extreme. The triangulation done during the season covered about 12,000 square miles, and the topographical work 14,500 square miles of country.

Dispensaries.—The past year was very unhealthy owing to famine, and its constant attendant, pestilence.

PATIENTS TREATED IN PUNJAB DISPENSARIES.

	Remain- ing at end of pre- vious year	IN-DOOR.			OUT-DOOR.			GRAND TOTAL.
		Male.	Female.	Total.	Male.	Female.	Total.	
1860 ...	2,088	11,901	1,692	13,593	131,325	33,990	165,324	181,006
1861 ...	2,026	10,649	1,856	12,505	144,137	89,865	184,002	193,533
Difference	62	m. 1,250	p. 164	m. 1,088	p. 12,812	p. 5,866	p. 18,678	p. 17,528

Vaccination was extended to Lahoul :—

	Successful.	Unsuccessful.	Doubtful.	TOTAL.
1860	97,471	22,776	11,734	1,31,981
1862	1,07,672	23,346	12,238	1,43,256
Difference ...	p. 10,201	p. 570	p. 504	p. 11,275

Tea—The Government plantation yielded 13,589 lbs. against 26,532, but the quality was far superior and the seed greater. 600 maunds of seed were given to 22 Europeans and 417 to 307 natives. To facilitate the transfer of land from the native proprietors in the Kangra valley to the European planters, Government agreed in some instances to forego its lien on the forests, on condition of the landholders consenting to sell land for tea cultivation. Central Asia offers a great market for tea. At present the caravan passing through Yarkand to Khokand and Bukhara, brings large quantities; and some is probably brought by the caravan coming from Mai-ma-chin. Now, there is a practicable though somewhat difficult route to Yarkand by Leh, over the Karakorum mountains; and a valuable product like tea would well bear the expense of the journey. Or there is the longer but easier route by Peshawur to Bukhara, which is open nearly the whole year, and along which there is a large and well established trade. The naturalization in our territory of a plant in universal demand all over Central Asia, may most materially facilitate our intercourse with that unexplored region.

The Appendix to the Report contains a valuable paper by T. H. Thornton, Esq., addressed to the Bengal Committee for the International Exhibition of 1862, on the articles forwarded from the Punjab.



INDEX

TO THE

ANNALS OF

INDIAN ADMINISTRATION.

A

Abkarry, (see Excise)
 Aboo Mount, 252.
 Aborigines of Port Blair, 390.
 Act X. of 1859 (see Rent Law)
 Acts of the Legislative Council
 in 1860-61, 36.
 — of the Madras do, 439.
 Aden, 129.
 Affreedees, 112.
 Afghan Affairs, 112.
 Agra College, 177.
 Agricultural Public Works in India,
 52.
 Agriculture in the Straits Settle-
 ments 79, 119.
 — — — — — Punjab, 110, 478.
 — — — — — Bombay, 136
 — — — — — Tenasserim, 157.
 — — — — — Mysore, 160.
 — — — — — N. W. Provinces, 200
 Ahmedabad, Governor of Bombay's
 Visit, 129.
 Ajmere, 225.
 Alghada Lighthouse, 52
 Allahabad, Palsy in, 229.
 Almora, 355.
 Amherst, 246, 358.
 Andaman Islands, 358.
 Antiquities of Khelat, 244
 Arms Act described, 37, 205.
 Army, (see Military)
 Arracan, Trade of, 15.
 — — — — — Range, 246, 306.
 — — — — — Survey, 321.
 Artillery Amalgamation, 325.
 — — — — — Practice, 330.

Assam, 306, 100.
 Asylum, (see Hospital.)
 Attock, Tunnel at, 55, 111, 474.
 Audit and Account System, 43.
 Ayar Pettah, 358.

B

Backergunge Survey, 321.
 Badagas, Schools for, 188.
 Baitool Forests, 314.
 Balasore, Trade of, 15.
 Banghi, 246.
 Banks, Presidency, 45.
 — — — — — of Bengal, 16.
 Banswara, rebels in, 128.
 Baragar Hill, 358.
 Barce Doab Canal, 473.
 Bareilly College, 177.
 — — — — — Outram Institute at, 329.
 Baroda Railway, 436.
 Barrah Village, Palsy in, 229.
 Bassein Customs Duty,
 Beadle (Capt.) on the Cuttack Ri-
 vers, 407.
 Beejasal Timber, 346.
 Beharee Nath, 246.
 Beila Deela Range, 331.
 Beloochistan, 237.
 Benares College, 177.
 Bengal, External Commerce of,
 in 1860-61, 13.
 — — — — — Administration of, in 1860-
 61, 79.
 — — — — — Land Reve-
 nue, in 1860-61, 299.
 — — — — — Salt Department, 313.

- Bengal, Survey Operations in, 1859-60, 319.
 Berar, Administration of, 1861-62, 392.
 Beyla, 228.
 Bhaugulpore, Natural Products of, 305.
 Bheel Outrages, 128.
 Bhundaysir in Kharonde, 335.
 Bible in Schools, 192.
 Boarding Schools for Natives, 178.
 Bokhara, 112.
 Bombay, External Commerce of, in 1860-61, 19.
 — Trade for five years, 20.
 — Continental Ports of, 23.
 — Shipping, 29.
 — Administration of, in 1860-61, 117.
 — Fortifications of, 130.
 Books in the Post Office, 151.
 — published in the N. W. P., 182.
 — ——— Madras, 188.
 Botanical Gardens of Calcutta, 99.
 Brahooes Tribes, 243.
 Brandis (Dr.) on the Burmah Forests, 379.
 Brouch Customs Duty, 23.
 Budget System, 43.
 Bullock Train, 152, 329.
 Bulsar Customs Duty, 23.
 Bunassir, 246.
 Burdwan, Natural Products of, 305.
 Burmese, 358.
 Burnore, 246.
 Bustar, 330.
- C
- Cachar, Natural Products of, 306.
 Calcutta, Trade of, in 1860-61, 16.
 — Police, 1859-61, 309.
 — Excise Duties, 398.
 — Small Cause Court, 219.
 — Mint, 46.
 Callagouk or Curlew Island, 358.
 Canals (see Irrigation), 52.
 — in Punjab, 110, 473, 478.
 — Madras, 223.
 Canara (North) transferred to Bombay, 122.
 Canning (Lord) in Oudh, 145.
 Capital, English, 430.
 Capitation Tax of Pegu, 31.
 Caranjah, 247.
 Carnatic, Nawab of, 69.
 Cavalry, Native, 326.
 — Revised Establishment, 328.
 Cawnpore Memorial, 51.
 Chamberlain, (Brigadier General) 113.
 Chendwar Hill, 361.
 Chendwara Forests, 344.
 Cheerat, 361.
 Cheni, 247.
 Cherrapoonjee, 361.
 Chewa Range, 247.
 Chikuldah, 247.
 Chinese in Straits Settlements, 78.
 — Tartary, Trade with India, 113.
 Chinna Kimedy, 47.
 Chittagong, Trade of, 15.
 Cholera in Agra Prison, 349.
 — Meerut do., 357.
 — Mean Meer, 478.
 Chota Nagpore, 307.
 — Survey, 322.
 Christian Missions in Madras, 78.
 Civil Procedure Code, 79.
 — Engineering College, Madras, 189.
 Clerk, (Sir G.) 129.
 Cochin, 69, 460.
 Coffee in Coorg, 35.
 — Bengal, 100.
 — Darjeeling, 307.
 Coinage in Calcutta, 45.
 — in Madras, 68, 457.
 — in Bombay, 127.
 Commission, Military Finance, 43.
 — do. in Pegu, 32.
 — do. in Berar, 395.
 Contract, Breach of, 97.
 Cooch Behar Survey, 319.
 Coorg, Administration of, 1860-61, 35.
 — Hills, 361.
 Cossya Tribes, 104.
 — in Hills, 361.
 Cotton, Export of, from Calcutta, 18.
 — Trade of Bombay, 24.
 — Imports into do., 25.
 — Exports from do., 26.
 — Roads for transit of, 55;
 — in the Punjab, 116, 478.
 — Adulteration, 136.
 — Tenasserim, 157.
 — Madras, 8, 274.
 — Berar, 396.

Cotton, Straits Settlements, 420.
 ——— on Railways, 438.
 ——— Import into Great Bri-
 tain, 438.
 Crime (see Justice.)
 Cubbon, (Sir Mark) 161.
 Currency Act, 42.
 ——— in Madras, 457.
 ——— Mr. Wilson's plan changed,
 44.
 Cust (Mr.) on Mooltan Tenures, 12.
 ——— Googaira do., 165.
 ——— Goojerat do., 169.
 Customs Duty of Bengal, 18.
 ——— Bombay Ports, 23.
 ——— Bombay, 28, 125.
 ——— Pegu, 32.
 ——— Madras, 60, 446.
 ——— N. W. Provinces,
 209, 420.
 ——— Tenasserim, 155.
 Cuttack, Trade of, 15.
 ——— Natural Products of, 306.
 ——— Rivers, 400.

D

Dacca, Natural Products of, 306.
 ——— Survey, 320.
 Dacoit Settlement at Bhudruk, 282.
 ——— Statistics of, 288, 317.
 ——— School, 319.
 Dacoity in India, 279.
 ——— in Bombay, 317.
 Dalhousie Port, 34.
 ——— Sanitarium, 248.
 Damin-i-koh, 248.
 Damoodah River, 1.
 Danvers (Jaland) on Railways, 432.
 Darjeeling, 101, 248.
 Dead Letter Department, 151.
 Dealtry, Bishop of Madras, dies, 56.
 Denison, (Sir W.) Governor of Mad-
 ras, 56.
 Dhardeo, 248.
 Dhurkale Hill, 249.
 Dhurmsalla, 249.
 Dinagapore Survey, 320.
 Dispensaries in Pegu, 34.
 ——— Madras, 76, 217.
 ——— Bengal, 96.
 ——— N. W. Provinces, 212,
 354.
 ——— Hyderabad, 295.
 ——— the Punjab, 479.

Dispensaries, Gurwhal, 348.
 District Post Offices, 151.
 Doctors, Native, 289.
 Domus, 249, 307.
 Doorance Empire, 171.
 Doroo Doonun Pergunnah in
 Hidgellee, 410.
 Druggists, 291.
 Dugshae, 249.
 Dumoh Forests, 344.
 Dykes in Hidgellee, 410.

E

East Indians in the Army, 71.
 Ecclesiastical Public Works, 51.
 ——— Affairs in Madras, 75.
 ——— Oudh, 145.
 Eden, (Hon'ble A.) Sikkim Expedi-
 tion, 103.
 Edmonstone, (Hon'ble G.) Opinions
 on Settlers, Opium and Revenue,
 431.
 Education in Pegu, 32.
 ——— Madras, 71, 184, 462.
 ——— Bengal, 91.
 ——— Punjab, 109, 190, 472.
 ——— Bombay, 133.
 ——— Sind, 133.
 ——— Oudh, 144.
 ——— Tenasserim, 156.
 ——— Mysore, 159.
 ——— N. W. Provinces, 173.
 ——— Berar, 393.
 ——— Straits Settlements,
 417.
 Electric Telegraph in Pegu, 32.
 Elephant Point in Pegu, 249.
 Elphinstone, (Captain) Settlement of
 Googaira, 163.
 Emigration from Madras, 62, 444.
 ——— Bengal, 95.
 ——— Bombay, 136.
 Euteshwar, 249.
 Excise Duties of Madras, 446.
 ——— Bengal, 87, 397.
 ——— Punjab, 109.
 ——— Bombay, 122.
 ——— Oudh, 143.
 ——— N. W. Provinces,
 208, 427.
 ——— Berar, 393.
 ——— Sir J. P. Grant on,
 400.

F

- Famine in the N. W. P., 428, 212, 424.
 ————— Moradabad, 351.
 Female Schools, N. W. P., 180.
 ————— Punjab, 192.
 ————— Military School, 196.
 Fever in Saugor, 339.
 Finance of Pegu, 32.
 ————— Indian, 42.
 ————— Madras, 15, 457.
 ————— Straits Settlements, 78, 419.
 ————— Bengal, 89.
 ————— Punjab, 111, 474.
 ————— Bombay, 127.
 ————— Oudh, 144.
 ————— N. W. Provinces, 210.
 ————— Berar and Hyderabad, 395.
 Fisheries in Madras, 62.
 ————— Tenasserim, 155.
 ————— Bengal, 307.
 Flax in the Punjab, 115.
 ————— N. W. Provinces, 340.
 Forests in Pegu, 33.
 ————— Madras, 13, 449.
 ————— Bombay, 136.
 ————— Oudh, 146.
 ————— Tenasserim, 153, 158, 377.
 ————— N. W. Provinces, 211.
 ————— Saugor and Nerbudda Territories, 342.
 Furreedpore Survey, 321.

G

- Gagur Range, 363.
 Ganges Canal, 52.
 ————— effect on the Famino, 214.
 Ganjam, Road in, 56.
 Garrows of Assam, 103.
 Gell, (Bishop) 439.
 General Service for Officers, 329.
 Geological Survey, 384.
 ————— Lectures at Madras, 386.
 ————— Publications, 387.
 ————— Museum, 387.
 Gizree, 250.
 Godavery River, 63, 450.
 ————— Canals, 223.
 ————— District, 224.
 Gogra, Navigation of, 144.
 Gold imported, 46.

Gonds, 332.

- Googaira District, Settlement of, 163.
 Goojerat District, Settlement of, 168.
 Goruckpore, Inland Trade of, 430.
 Gowhatty, 374.
 Grant, (Sir Hope) Commander-in-Chief of Madras, 56.
 ————— Sir Patrick, 439.
 ————— (Sir J. P.) on Parisnath, 162.
 ————— Excise System, 400.
 Grants-in-Aid in Madras, 74.
 ————— in Bengal, 92.
 ————— N. W. Provinces, 181.
 ————— Madras, 188.
 ————— Punjab, 191.
 Green (Major) at Khelat, 232.
 Grose's (Mr.) Experiments in the Damoodah, 1.
 Gurwhal, Small Pox in, 347, 364.
 Guzerat Frontier Duties, 126.
 ————— Political Affairs, 128.
 Gwalior, (Maharajah of) Exchange of Territory with, 210.

H

- Harris, (Captain) on the Cuttack Rivers, 401.
 Herat War, 475.
 Herbalists, 290.
 Hidgelee Embankments, 410.
 ————— Northern, 415.
 Holta, 250.
 Hoshungabad Forests, 344.
 Hospitals in Pegu, 34.
 ————— Straits Settlements, 79.
 ————— Bengal, 96.
 ————— Madras, 217.
 Hujams, 290.
 Huldwanee, 364.
 Hulkabundi Schools, 173, 179.
 Hurdoo Timber, 346.
 Hyderabad Medical School, 289.
 ————— Districts, Administration of, in 1861-62, 391.

I

- Ice Machines, 328.
 Inam Commission of Madras, 63, 448.
 ————— Bombay, 123.
 ————— Sind, 125.

INDEX.

v

- Inam Commission in Ajmere, 226.
 Income-tax of Pegu, 32.
 ——— Act described, 37.
 ——— Madras, 61-2, 447.
 ——— Bengal, 88, 309.
 ——— in Punjab, 109.
 ——— Bombay, 125.
 ——— Oudh, 143.
 ——— N. W. Provinces, 208.
 ——— Berar, 393.
 Indigenous Schools, N. W. P., 180.
 Indigo, Exports of, from Calcutta, 18.
 ——— Disturbances in Bengal, 96.
 ——— Commission, 96.
 ——— in the Punjab, 116, 479.
 ——— Madras, 8, 274.
 ——— N. W. Provinces, 431.
 Indrawutty River, 331.
 Indus River, Attock Tunnel under,
 55, 111, 474.
 ——— Steam Flotilla, 131, 436.
 ——— Navigation, 474.
 Industrial Public Works, 51.
 ——— Arts School, Madras, 189.
 ——— Dacoity School, 319.
 Infantry and Cavalry Establish-
 ments, 328.
 Infirmary (see Hospital).
 Inundations of Pooree, 400.
 ——— Hidgellee, 412.
 Iron in Kumaon, 51.
 ——— Nainar, 52.
 ——— Beerbhoom, 102.
 ——— Mysore, 160.
 ——— N. W. Provinces, 211.
 Irrigation from the Damoodah, 1-2
 ——— in Behar, 3.
 ——— Public Works in India,
 52.
 ——— Company in Madras, 64,
 455.
 Irving, (Dr.) on a species of Palsy,
 229.
- J
- Jails in Pegu, 30.
 ——— for Europeans in the Neil-
 gherries, 41.
 ——— Madras, 58, 444.
 ——— Straits Settlements, 79, 420.
 ——— Bengal, 83.
 ——— Punjab, 106, 471.
 ——— Bombay, 122.
 ——— Oudh, 140.
 ——— Tenasserim, 155.
- Jails, N. W. Provinces, 207.
 ——— Berar, 393.
 Jain Worship, 161.
 Jalawar, 238.
 Jameera Pat, 364.
 Jameson (Dr.) on Flax, 340.
 Jats, 166.
 Jeypore, 337.
 Jhansee Districts, 210.
 Johore, 418.
 Joonaghur in Kharonde, 335.
 Jubbulpore Forests, 342.
 Juggulpore in Bustar, 330.
 Jumna Canals, 53.
 Jury System in Oudh, 137.
 Justice, Administration of, in Pegu,
 30.
 ——— Coorg, 35.
 ——— Madras, 58, 196, 200, 439.
 ——— Straits Settlements, 77, 416.
 ——— in Bengal, 79.
 ——— Punjab, 104, 467.
 ——— Bombay, 118.
 ——— Sind, 119.
 ——— Oudh, 137.
 ——— Tenasserim, 154.
 ——— Mysore, 158.
 ——— N. W. Provinces, 202.
 ——— Berar, 391.
 Jynteah Hills, 104, 364.
- K
- Kaila Khan Hill, 364.
 Kala Dhoongee, 365.
 Kangra, 250.
 Kass, 250.
 Katharoi and Alexander the Great,
 166.
 Kattyawar, Visit of Sir G. Clerk,
 129.
 Keatinge, (Major) Iron Works, 52.
 Kendall, (Dr.) on the Maghassani
 Hills, 4.
 Kerowite Hill, 251.
 Kharonde, 333.
 Khehat, Political Affairs in, 232.
 ——— Geography, Tribes, and His-
 tory of, 236.
 Khonds, 47, 336.
 Khurrun Hill, 250.
 Khuttuck Hills, 366.
 Khyraghur Village, Palsy in, 231.
 Khyrum, 366.
 ——— State, 104.

Kohat Pass, 112.
 Kokan, 112.
 Kookie Raids, 103.
 Kowah Timber, 346
 Kumaon, 365.
 ——— Iron Works, 51.
 Kumawun, 251.
 Kuror, 251.
 Kurruckpore Hills, 251.
 Kussowlic, 251.

L

Lahore Railway, 436.
 Laing, (Hon'ble Mr.) his Budget,
 1861, 42.
 Land, litigation connected with, in
 Bengal, 80.
 ——— in Madras, 440.
 ——— in Oudh, 142.
 ——— N. W. Provinces, 203, 426.
 ——— classified in Madras, 273, 446.
 ——— tax of Pegu, 31.
 ——— Berar, 393.
 ——— Coorg, 35.
 ——— Madras, 59, 269, 446.
 ——— Bengal, 84.
 ——— Punjab, 107, 478.
 ——— Bombay, 122.
 ——— Sind, 123.
 ——— Oudh, 140.
 ——— Tenasserim, 155.
 ——— Mysore, 158.
 ——— N. W. Provinces, 208,
 426.
 ——— Redemption of, in Bengal, 300,
 308.
 Landour, 366.
 Lanjee Hills, 250.
 Laroot Tin Mines, 418.
 Law, (see Justice.)
 Leechwomen, 292.
 Legislation, Indian, in 1860-61, 36.
 ——— Madras, in 1861-62, 439.
 Leh, 112.
 Libel on Ramdial, 145.
 Lloyd (Major) in Ajmere, 228.
 Logoo Hill, 366.
 Lohoo Ghaut, 367.
 Longwood, 367.
 Lugoo Hill, 361.
 Lumaden, (Lieut.-Col.) 115.
 Lylancot, 367.

M

Mackenzie, (Capt. H.) settles Gooje-
 rat, 168.
 MacNeil, (Captain A. C.) Report, 46.
 Madras, Administration of, in 1860-
 61, 56.
 ——— Presidency College, 185.
 ——— External Commerce of, 1860-
 61, 259.
 ——— Land Revenue, 1859-60, 75.
 ——— Small Cause Court, 295.
 Madriasa College of Madras,
 ——— Hyderabad, 394.
 Maghassani Hills, 3.
 Mahadeo Hills, 387.
 Mahamurree Plague in Gurwhal, 347.
 Mahanuddy River, 401.
 Mahooa Ghurree Hill, 251.
 Maira or Maruk Hill, 252.
 Malacca Revenue, 417.
 Malwa Opium, Duty on, 42.
 Mammalo Pass, 252.
 Manderson (Mr.) on English Set-
 tlers, 430.
 Mapa Tax in Ajmere, 228.
 Marine Affairs in Pegu, 32.
 ——— in Madras, 65, 456.
 ——— in Straits Settlements,
 78, 418.
 ——— Bengal, 94.
 ——— Bombay, 132.
 ——— Administration of, in
 1860-61, 153.
 Martaban Forests, 379.
 Medical College, Punjab,
 ——— Madras, 189, 268,
 465.
 ——— Hyderabad, 289.
 Medical matters in Madras, 75.
 ——— Bengal, 95.
 ——— Bombay, 134.
 ——— Tenasserim, 156.
 ——— Mysore, 161.
 ——— Madras, 199.
 ——— Khelat, 239.
 Medicines, 291.
 Meenahs, 286.
 Mekran, 242.
 Meriah Sacrifices, 47, 333.
 Mhairwarra, 223.
 Michel, (Mr.) a Settler, 431.
 Military matters in Pegu, 33.
 ——— Finance Commission ap-
 pointed, 43, 467.

Military Public Works, 50.
 ——— Matters in Madras, 70, 461.
 ——— Straits Settlements,
 78, 418.
 ——— Punjab, 113, 477.
 ——— Bombay, 132.
 ——— Oudh, 146.
 ——— Tenasserim, 157.
 ——— Mysore, 160.
 ——— Schools, Madras, 189.
 ——— Bengal, 195.
 ——— Sanitaria, 246, 358.
 ——— Administration, in 1861-
 62, 325.
 Mint, Calcutta, 46.
 ——— Bombay, 127.
 ——— Madras, 457.
 Missions in Madras, 270.
 Missionary Schools in the N. W. P.,
 177.
 ——— Compared with
 Government, 182.
 Punjab, 194.
 Mohatturpha Tax in Coorg, 35.
 ——— Madras, 61, 277.
 Mohmuds, 113.
 Moleen State, 104.
 Montgomery (Sir R.) on Education,
 195.
 Mooltan District, Settlement of, 10.
 ——— described, 11.
 Mooltan city, history of, 10.
 Moondhi Hills, 252.
 ——— Navigation of, 409.
 Moorbar Talooka, Assessment of, 6.
 Morehead, (Hon'ble W.) acts as Go-
 vernors of Madras, 56.
 Mortality in Madras, 199.
 Moulmein, Shipping of, 157.
 Mowah Timber, 346.
 Mundlah Forests, 342.
 Municipal Affairs in Madras, 76.
 ——— Straits Settlements,
 79.
 ——— Bombay, 135.
 Murray (Dr.) on Sanitaria, 376.
 Murree, 252.
 Museum of Madras, 77, 467.
 ——— Geology, 384.
 Mussoorie, 368.
 Muthoor, 252, 369.
 Mutlah Railway, 436.
 Myne Pat, 369.
 Mysore Grant, 40.
 ——— Administration of, 1860-61,
 158.

N

Nagpore, Roads in, 55.
 Negapatam Railway, 436.
 Nepal, Cession of Terai to, 145.
 Newspapers in the Post Office, 140.
 Nimar Iron Works, 52.
 Nizam of Hyderabad—Treaty of,
 1860, 391.
 Nontrodien, 369.
 Noormai Poonjee, 369.
 Normal Schools, N. W. P., 8, 174.
 ——— Madras, 185, 463.
 ——— Punjab, 192.
 North-Western Provinces, Adminis-
 tration of, in 1860-61, 202.
 ——— Customs Adminis-
 tration, 1861-62, 420.
 ——— Revenue Adminis-
 tration, 1860-61, 424.
 ——— Education, 173, 176.
 Norvet, 36.
 Nuddea, Details of Excise in, 307.
 Nuncklow, 369.
 Nynee Tal Gagur, 370.

O

Observatory of Madras, 77, 467.
 Oculists, 291.
 Okhamundel Pirates, 128.
 Ootacamund Lawrence Asylum,
 465.
 Opium, Malwa, 42.
 ——— in Bengal and Behar, 87.
 ——— in Bombay, 125.
 ——— Oudh, 143.
 ——— N. W. Provinces, 430.
 Ordnance School, Madras, 189.
 ——— Improvements in, 327.
 Orissa, Human Sacrifices in, 47.
 Oudh, Administration of, 1860-61,
 137.

P

Pachmurry Hill, 254, 370.
 Pahang, 418.
 Pakoria Village, 253.
 Palsey in Allahabad, 229.
 Panchgunny, 253.
 Parisnath (Mount) Sanitarium, 161,
 370.
 Patna, Natural Products of, 306.
 Paumben Chaunel, 65, 224.

- Peacock, (Sir B.) on the Mysore Grant, 41.
 Pearl Fishery of Madras, 62, 447.
 Pegu, Administration of, in 1860-61, 30.
 — Forests, 381.
 Penal Code, 38.
 Perak, 418.
 Perim, 129.
 Persian Aggression on Khelat, 244.
 Peshawur, 370.
 Pilots in Bengal, 95.
 Planters, Indigo, 98.
 Playfair (Dr.) on Cholera, 349.
 Podocotta State, 70, 461.
 Police in Pegu, 30.
 — Madras, 58, 196, 198, 441.
 — Straits Settlements, 78.
 — Bengal, 83.
 — Punjab, 105, 469.
 — Bombay, 121.
 — Oudh, 139.
 — Tenasserim, 154.
 — N. W. Provinces, 206.
 — Calcutta, 309.
 — Berar, 391.
 Political Affairs in Pegu, 33.
 — in Madras, 68.
 — Straits Settlements, 78, 418.
 — Bengal, 102.
 — Punjab, 112.
 — Bombay, 128.
 — Oudh, 145.
 — Tenasserim, 157.
 — N. W. Provinces, 210.
 Pomriang, 370.
 Pooree, Embankments in, 408.
 — Trade of, 15.
 Poorundhur, 253.
 Population of Pegu, 33.
 — Coorg, 35.
 — Punjab, 109, 117.
 — Tenasserim, 157.
 — Goozaira, 165.
 — Googjerat, 172.
 — Bustar, 332.
 — N. W. Provinces, 429.
 Port Blair, Administration of, 388.
 Postage Stamps, 151.
 Post Office in Punjab, 111.
 — Administration of, in 1860-61, 147.
 — Tenasserim, 157.
 Pownghur, 254.
 Presses, District, in Madras, 62, 447.
 Prices in Bengal, 86.
 — Punjab, 115.
 — Madras, 271.
 Prisons, (see Jails.)
 Public Works in Pegu, 32.
 — throughout India, 48.
 — in the various Provinces, 49.
 — Madras, 63, 221, 449.
 — Straits Settlements, 78, 418.
 — Bengal, 92.
 — Punjab, 110, 473.
 — Bombay, 129, 215.
 — Oudh, 144.
 — N. W. Provinces, 209.
 — Berar, 394.
 Pulo Penang, 254.
 — Revenue, 417.
 Punjab, Administration of, in 1860-61, 104.
 — ditto, in 1861-62, 467.
 — Education, 190.
 — Irregular Force, 477.
 Pupil Teacher System, 192.
 Purdah-Nusheen Women in the Famine, 353.
 Putiala Canal, 473.
- Q
- Quarter-Master General's Office, 329.
 Quedah, 418.
 Quinine in Madras, 449.
- R
- Raban, (Major) Kookie Expedition, 103.
 Railways, Sunday Labour on, 56.
 — in Madras, 64, 435.
 — in Bengal, 94, 435.
 — in Punjab, 111, 436, 473.
 — in Bombay, 130, 435.
 — in Sind, 131.
 — Feeders, 394.
 — Danvers' Report, 432.
 — Accidents, 433.
 — Finance, 433.
 — Fares, 437.
 Rainfall in the Punjab, 115, 478.
 — Ajmere, 226.
 — Madras, 270.
 — N. W. Provinces, 425.
 Rairee Fort, 255.

Raj Ghat, 255.
 Rajmahal Hill, 255.
 Rajshaye, Natural Products of, 307.
 Rampore, (Nawab of) Grants of Land to, 210.
 Rangoon, 34.
 Rawling, 255.
 Regimental Workshops, 325.
 Rent Law, (Act X. of 1859), 80, 302, 426.
 Revenue of Pegu, 31.
 — Coorg, 35.
 — Madras, 59, 444.
 — Straits Settlements, 78, 417.
 — Bengal, 84.
 — Punjab, 107.
 — Bombay, 122.
 — Oudh, 140.
 — Tenasserim, 155.
 — Mysore, 158.
 — N. W. Provinces, 208, 424.
 — Khelat, 239.
 — Bustar, 332.
 — Kharonde, 336.
 — Berar, 393.
 Rhotas, 250, 6, 365.
 Rice in Pegu, 31.
 Roads in India, 54.
 — Grand Trunk, 92.
 — in Punjab, 111.
 — Tenasserim, 156.
 — Berar, 394.
 Roman Catholic Schools, Madras, 190.
 Russulpore River, 410.
 Ryots' Holdings in Madras, 271.
 Ryotwar Settlement in Madras, 275.

S

Sacrifices, Human, in Orissa, 46.
 Sal Timber, 346.
 Salabut Khan, 256, 258.
 Salt in Madras, 60, 276, 446.
 — Bengal, 84, 313.
 — Bombay, 125.
 — Oudh, 143.
 — N. W. Provinces, 209, 421.
 — Berar, 393.
 — Manufacture in Hidgellee, 414.
 Salween, Forests on, 378.
 Sanitaria, Military, 358, 246.
 Sanskrit Studies, 177.
 Saptar Shing Hill, 256.

Sargoojah Highlands, 256.
 Sattara, 258.
 Saugor Forests, 345.
 Saul Timber, 345.
 Savings Banks, 43.
 Sawun Mull (Dewan), 164.
 Schalch, (Mr.) on the Maghassani Hills, 6.
 Sealkote, Flax at, 340.
 Seetapahar, 371.
 Semur Timber, 346.
 Seonee Forests, 343.
 Settlers, English, 430.
 Sham Khet, 371.
 Shan Tribes, 167.
 Shear Kullian, 371.
 Sher-ke-Danda, 371.
 Shillong, 257, 372.
 Shipping of Bengal Ports, 19.
 — Bombay, 29.
 — Moulmein, 156.
 — Madras, 266.
 Short, (Capt.) on the Cuttack Rivers, 402.
 Sikh Management of Googaira, 164.
 — History of Goojerat, 170.
 Sikkim Expedition, 103.
 Simla, 257.
 Sind, Justice in, 119.
 Singaleelah Range, 257.
 Singapore Revenue, 417.
 Siris Timber, 346.
 Sittang, 258.
 Siwalik Range, 372.
 Small Cause Courts in Bengal, 61.
 — Bombay, 121.
 — of Calcutta, 219.
 — of Madras, 295.
 Small Pox in Gurwhal, 347.
 Solun, 258.
 Soobunroeka River, 410.
 Soonderbun Grants, 84.
 — Estates, 305.
 Stamp Tax in Madras, 61.
 — in Bengal and Northern India, 88, 427.
 — in Punjab, 109.
 — Bombay, 125.
 — Oudh, 143.
 — Tenasserim, 156.
 — Berar, 393.
 Stationery Department, 89.
 Straits Settlements, Administration of, in 1860-61, 77.
 —, do. in 1861-62, 416.

T

Trade of Kelat, 245.
Travancore, 68, 460.
Treasury Bills, 42.
Trichinopoly Railway, 436.
Typhoid Fever in Bolundshuhur,
356.

U

Ummur Kuntuk, 373.
Umritsur Railway, 436.
Uncovenanted Service Examinations
in Madras, 189.
University of Madras, 73, 462.
----- Calcutta, 91, 338.
----- Bombay, 133.

V

Vaccination in Pegu, 34.
 ———— Bombay, 135
 ———— Mysore, 161.
 ———— N. W. Provinces,
 212.
 ———— Gurwhal, 349.
 ———— Berar, 396.
 in Punjab, 479.
Vingorla, 259.
Volunteer Corps in Pegu, 34.
 ———— Penang, 78.
 ———— Bengal, 96.
 ———— Punjab, 478.

W

Wagner Risnig, 125.
Wallace, (Mr.) on the Pegu Forests,
383
Ward (Sir H.) dies, 56.
Waste Lands in Bengal, 81.
————— Madras, 272.
Wool in Kelat, 245.
Worce, 269.
Wuzzerees, the Mahsood, 112.
———— Expedition, 113, 476.

y

Yarkund, 113.
Yoma, 259.
Rivers, 406.
Cuttack, 113.
Punjab, 192.





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